

SUPERINTENDENT'S ANNUAL NARRATIVE YELLOWSTONE NATIONAL PARK FY2008



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Superintendent's Office

In FY 2008 the Superintendent's Office consisted of Suzanne Lewis, Superintendent, Colin Campbell and Chris Lehnertz, Deputy Superintendents, Jan Laye, Executive Assistant and Kerrie Evans, Secretary and Freedom of Information Officer.

On October 27, 2007, the Administration Building underwent security access changes to the building. Employees are only able to access the building by using their Yellowstone issued photo I.D. card or a personal security code. This new access policy is in effect 24/7.

Hot Topics in FY2008

- ✓ IBMP/ Bison Management
- ✓ New Winter Use Plan/Lawsuits and Sylvan Pass Avalanche/Access Controversy
- ✓ Delisting of the Gray Wolf and Grizzly Bears
- ✓ Wireless Communications

Yellowstone National Park received 23 FOIAs on a variety of topics, including several case incident reports, winter use, wireless communications, bear maulings, bison management, and human fatalities.

The Superintendent's office coordinated payment and made reservations for 21 weddings held in the Mammoth Chapel during FY2008. The office coordinated responses to 29 congressional inquiries, and coordinated responses to 26 non-Congressional letters requiring response.

Significant Dates and Events

October 31, 2007 – Employee Awards luncheon at Chico.

January 22, 2008 – West Yellowstone Visitor Information Center grand opening.

February 20-22, 2008 – Winter Interior Trip

March 4-6, 2008 – Chris Lehnertz attended Toyota event in California.

March 20, 2008 – Senator Jon Tester visited the Superintendent's office regarding bison issues.

April 19 – Chris Lehnertz attended the Livingston Business Women's breakfast.

May 5-7, 2008 – GRTE/YELL Joint Retreat.

May 18-19, 2008 – Cody Days

June 5, 2008 – Tribal Consultation held in Mammoth.

June 10, 2008 – DAB Tour of Yellowstone as part of DAB meetings being held in Grand Teton that week.

July 15-18, 2008 – Suzanne, Colin and Chris attended the Superintendents' Conference in Snowbird, Utah.

July 20, 2008 – Tauck Tours event held at Old Faithful.

August 25, 2008 – Dedication of Justice Center in Mammoth.

September 2008 – Melanie Wasco, intern from EPA, assisted the park on Core Operations.

September 10, 2008 – Chris Lehnertz hosted a picnic for the employees in the divisions she supervises.

September 24, 2008 – Kerrie Evans and Jack O'Brian, FOIA/PA Officer for the Intermountain Region, hosted a Freedom of Information Act/Privacy Act brown bag lunch.

Jan and Kerrie made 206 government assisted reservations for lodging in the park for VIPs and official park business, including:

- January 18, 2008 NPCA meeting
- January 24-26, 2008 Regional Director Sue Masica, vacation
- February 22-24, 2008 Mary Nickerson of Toyota, attend EMS meeting
- May 10-13, 2008 World Heritage group
- June 4-6, 2008 Tribal Consultation
- June 7-9, 2008 Dennis Reidenbach and family, Northeast Regional Director, vacation
- June 13-16, 2008 Dale Ditmanson, Superintendent, Great Smokies, vacation
- June 13-17, 2008 Gary Urwiler, Mooseheart International
- June 14-20, 2008 Minit Robertson and friends, Comptroller, Southeast Region, vacation
- June 18, 2008 White Bark Pine Conference
- June 20, 2008 Francis Patton, friend of IMR Concessions staff, vacation
- June 25-26, 2008 Nancy Appler and family, retired from Secretary's Congressional and Legislative Office, vacation, per request by Elaine Hackett in Washington office
- June 30-July 3, 2008 Corinne DeSommer and family, friend of Representative Peter King, vacation, per request by Elaine Hackett, Washington office
- July 1-2, 2008 Kitty Martinez, wife of Senator Mel Martinez, vacation
- July 12-15, 2008 Stuart K. Johnson, Superintendent, Stones River Natl. Battlefield, vacation
- July 14-18, 2008 Delpha Maunders and VF ImageWear staff, uniform site visit, vacation
- July 18-23, 2008 Paul Roelandt and family, Superintendent, Cedar Breaks NM, vacation
- July 18-23, 2008 Scott Pardue and family, Superintendent, DeSoto Natl. Memorial, vacation
- July 21-24, 2008 Paul Woodland and family, friend of Representative Walden, vacation, per request by Elaine Hackett in Washington office
- July 25-26, 2008 John Payne, friend of former Assistant Secretary Hayes, vacation
- July 27-28, 2008 YPF Thorofare trip
- July-August 2008 numerous reservations for LeHardy fire crews and pilots
- July-August 2008 Air Force EMTs
- August 3-4, 2008 David Anderson, National Park System Advisory Board, vacation, per request by Dan Wenk
- August 10-11, 2008 Bruce Eldredge, Director of Buffalo Bill Historical Center, meeting with Superintendent
- August 14-15, 2008 Mary Nickerson of Toyota
- August 14-17, 2008 Former U.S. Attorney General Alberto Gonzales and family, vacation
- August 20-23, 2008 Marilyn Baker, Preserve America Community, vacation, per request by Jan Matthews in Washington office

- August 21, 2008 Laurel Angell, legislative staffer of House Committee for Natural Resources, vacation, per request by Elaine Hackett in Washington office
- August 25, 2008 numerous reservations for high profile guests attending the grand opening of new Justice Center
- August 26-28, 2008 CDC investigation of possible plague outbreak in rodents
- August 27, 2008 reserve entire Lake Queen for Fisheries Lake Trout Removal Program tour with Big Sky Institute (cancelled)
- August 28-29, 2008 IBMP Meeting for partner agencies
- September 1-3, 2008 Giuseppe Perrone, friend of Cecilia Piccioni, Chief of Staff to the Ambassador, Embassy of Italy, vacation
- September 1-6, 2008 Representative Brad Sherman and family, vacation
- September 13-14, 2008 MSU Studio Class
- September 14-21, 2008 Pam LeBlanc, friend of former NPS employee Dan Sholly, vacation
- September 15-18, 2008 Wyoming SHPO site visit
- September 28-October 3, 2008 Superintendents Sarah Craighead and Kate Richardson, shadowing Superintendent Lewis

The Superintendent traveled to Washington D.C. to spend time briefing department officials and DOJ attorneys on various lawsuits brought against the park in the area of winter use. Superintendent Lewis also spent a good deal of time working with the Sylvan Pass Study Group in Cody, WY and Billings, MT on the Sylvan Pass and Howitzer winter issues.

The Superintendent traveled numerous times to Washington D.C. and Helena, MT to discuss the Interagency Bison Management Plan and bison management with the NPS Director, and Assistant Secretary for Fish, Wildlife and Parks, Montana Governors Office, MT DOT, USDA APHIS, and MT Stockgrowers.

The Superintendent made many other trips while on official business. She traveled to Denver to meet with the Regional Director on Core Operations, attended the Development Advisory Board meetings in Denver and in Jackson, WY. and a rotary meeting in Helena, MT. The Superintendent, Deputies and Division Chiefs all attended a Joint Staff Retreat with Grand Teton National Park staff in Jackson, WY in May. The Superintendent, Deputies and several park staff attended National Parks Day in Cody, WY also in May.

On behalf of the Yellowstone Park Foundation the Superintendent traveled to New York City in January and attended a reception for the Museum of the Rockies in Bozeman, MT. She also attended a meeting with Canon executives and employees in Hollywood, Florida. She flew to Greenwich, CT in April and then to Santa Barbara, CA in September to attend information and working meetings for the Foundation.

Special travel itineraries, receptions and special events were prepared for a number of groups and special visitors to the park in FY2008. These included The National Park Foundation trip, Mary Nickerson from Toyota and her husband, David Koch and family, Jon Cavanaugh and wife, the Michelin visit, World Heritage group, Sonoran Institute group, The Justice Center Grand Opening, and the IBMP partners.

Safety Services

Ken Meyer continues to hold the position of Safety and Occupational Health Manager. Deborah VanDePolder held the position of Safety Assistant at (GS06), and then was promoted into a position in Finance.

Ken successfully proposed changing the Administrative Assistant position to a GS-9 Safety Specialist. This position was designed to be a field position, along with strong safety training duties. The hiring process began and was not completed until FY09.

Ken focused his efforts on integrating safety into all operations. This focus included working closely with Division Chiefs in an effort to improve the park's safety culture.

The Safety Advisory Committee was formalized with a working Charter. The Safety Advisory Committee included all ranks in the park's organization. An Executive Safety Committee was formed and formalized with a working Charter. The Executive Safety Committee consisted of Division Chiefs, Deputy Superintendents and the Superintendent.

Ken developed and implemented a written park-wide safety and health program and policy that provided direction for employees and supervisors as it relates to implementing a successful safety program.

The Park underwent an extensive safety review by members of the Occupational Safety and Health Administration (OSHA) and private sector safety professionals. This review provided a great frame-work for showing where the park needed to focus its attention as it relates to employee safety and health.

After a fatal incident that occurred in another park that involved the use of ATV's, the park management made a decision to discontinue the use of ATV's in the park and purchased UTV's with seatbelts and roll cages.

The injury rate in Yellowstone in FY2008 continued to drop. The DART Rate was 3.1.

Public Relations

In fiscal year 2008, the Public Affairs Office consisted of four employees: Al Nash, Chief of Public Affairs, Stacy Vallie, Public Affairs Specialist/Film Permit Coordinator, Karen McEneaney, Public Affairs Assistant/Film Permit Monitor, and Linda Miller, Secretary.

Ninety-four press releases were issued on a wide variety of issues, some of which were very controversial and sensitive in nature, such as winter use, bison management, wildfires, northern Yellowstone elk counts, elk poaching, fatalities, bear maulings, euthanization of two problem bears, and a wireless communication plan. In addition, releases were issued on other less controversial topics such as record visitation for 2007, awarding of the Old Faithful Visitor Education Center contract, media events for the 20th anniversary of the 1988 fires, debut of a virtual learning center, dedication of the new Justice Center in Mammoth, teacher workshops, the Youth Conservation Corps program, and other operational activities.

The Public Affairs staff also addressed hundreds of Congressional, media and public information requests relating to these issues, as well as many others, including Sylvan Pass avalanche operations, brucellosis in bison and elk populations, climate change, recycling and "greening" practices, cell towers, delisting of the gray wolf and the grizzly, bioprospecting and benefits sharing, earthquake and volcanic activity, the park's budget, infrastructure and staffing levels, road and other construction projects, etc. The PAO staff also kept Washington and Regional NPS staff apprised, attended meetings and held conference calls with cooperating agencies, public affairs officers and community leaders, and arranged itineraries and interviews with resource and other managers for numerous local, national, and international representatives of the media, academia, and government groups.

Winter use and bison management continue to be on the forefront of park issues, drawing local, regional, national and even international attention. Both issues are very complex, controversial and perpetual, requiring an extensive commitment of Public Affairs staff time. With the legal complexities of these issues also comes the need for proactive planning, rollout strategies, media plans, community and interagency interaction and communication, and developing employee talking points and question and answer sheets.

Approximately 375 requests for commercial filming, photography and sound recording permits were received in the Public Affairs Office in Fiscal Year 2008, resulting in the issuance of 82 permits. Extensive planning, monitoring, location scouting and research went into these projects. Considerable time was also spent on filming and photography proposals where no permits were issued. The majority of the permits issued in fiscal year 2008 were for documentaries on topics such as winter use, grizzlies, wolves, bison and the supervolcano. Other filming included documentaries on the natural history of Yellowstone, fly fishing videos, various travelogues, and segments for CNN's Anderson Cooper 360.

Management Assistant

In 2008, the Management Assistant's Office, within the Office of the Superintendent, continued to focus primarily on the winter use issue for Yellowstone and Grand Teton National Parks. John Sacklin, Mike Yochim, and Kevin Franken staffed the office. In addition, Denice Swanke, who had been part of the winter planning team since 2005, accepted a position at Grand Canyon National Park in spring 2008.

2007 Winter Use Plan:

In November 2007, the parks completed a new long-term Winter Use Plan and Environmental Impact Statement. The 2007 decision called for continuing the provisions of the 2004 temporary plan for the winter of 2007-2008 (720 snowmobiles per day) and then transitioning in the 2008-2009 winter to a plan calling for 540 snowmobiles per day. The parks opened for oversnow vehicle travel on December 19, 2007, and closed on March 9, 2008.

Litigation over the 2007 plan ensued in both the U.S. District Court for the District of Columbia and the U.S. District Court for the District of Wyoming, although all sides called for the 2007 plan to continue for the 2007-2008 winter season.

The Greater Yellowstone Coalition and National Parks Conservation Association filed suit in Washington, D.C., arguing that the 540 limit was too high and would impair park resources and values. The State of Wyoming and Park County, Wyoming, filed suit in Wyoming arguing the daily limit was not supported by science, 100 percent commercial guiding was too restrictive, and the NPS should rethink its proposed management of Sylvan Pass. The International Snowmobile Manufacturers Association intervened in both courts (on Wyoming's side in Wyoming and on the National Park Service's side in Washington, D.C.).

The U.S. District Court for the District of Columbia vacated the 2007 Winter Use Plan EIS, Record of Decision, and regulation on September 15, 2008. With the rejection of the 2007 rule, the regulation that replaced it was the 2004 winter use rule, promulgated on the basis of a temporary, three-year plan and EA. The 2004 regulation itself was not temporary, but the authorization to allow snowmobile and snowcoach use expired at the end of the 2006-2007 winter.

The 2004 EA had been challenged in both the District of Columbia and Wyoming courts, and it was upheld in Wyoming. In the District of Columbia court, one challenge was denied, and the other determined moot due to Congressional action (appropriation language in FY 2005, 2006, and 2007 directed the National Park Service to implement the 2004 rule).

As the fiscal year closed, the parks were challenged with determining how to allow motorized oversnow vehicle travel (both snowmobiles and snowcoaches) in the winter of 2008-2009.

Managed Winter Use

The winter of 2007-2008 represented the fourth winter under a managed winter use regime. All snowmobiles had to be commercially guided. Daily limits were in place for snowmobiles and snowcoaches. All recreational snowmobiles had to meet NPS best available technology requirements. The parks were closed from 9:00 in the evening until 7:00 in the morning, and other restrictions have also been in place.

The winter monitoring results over the past four winters indicated generally very good results. Historic, unacceptable conditions no longer exist. Monitoring shows excellent air quality, significantly reduced sound levels, few wildlife impacts, and an excellent experience for visitors to Yellowstone. A 2007-2008 winter visitor survey by the University of Montana indicated near 100 percent satisfaction. Where concerns exist with monitoring results, such as with soundscapes, the NPS understands the source of the issue. Often, the concerns are with snowcoaches rather than snowmobiles. However, the NPS recognizes there is a strong public perception that unacceptable conditions still exist in the parks. Aside from navigating the legal waters, another challenge facing the NPS is to better communicate that the managed snowmobile and snowcoach access program has worked.

Sylvan Pass

Another key winter-planning related focus during fiscal year 2008 was Sylvan Pass. The 2007 Winter Use Plan Record of Decision stated:

This decision addresses Sylvan Pass in Yellowstone. For the winter season of 2007-2008 the pass will be managed continuing the combined program outlined in the 2004 Temporary Plan. After the winter of 2007-2008, in order to maximize risk reduction, the pass would be open and managed using full avalanche forecasting (as defined in the Sylvan Pass Operational Risk Management Assessment). When full forecasting indicates the pass is safe, the pass would be open to oversnow travel (both motorized and non-motorized access).

The National Park Service will, in good faith, work cooperatively with the State of Wyoming, Park County, Wyoming, and the town of Cody to determine how to provide continued snowmobile and snowcoach motorized oversnow access to Yellowstone National Park through the East Gate via Sylvan Pass in the winter use seasons beyond 2007-2008.

The National Park Service will meet with representatives of the State of Wyoming, Park County, Wyoming, and the town of Cody to further explore reasonable avalanche and access mitigation safety measures and costs. In order to provide adequate time to amend this Record of Decision reflecting a potential consensus of the parties and to promulgate a new regulation reflecting the amended decision for the 2008-2009 winter use season and beyond, consensus should be reached by June 1, 2008.

The Sylvan Pass Study Group, comprised of representatives from Yellowstone National Park, the State of Wyoming, Park County and the City of Cody, met six times between mid-December 2007 and June 2008. The outcome of the meetings was:

The Sylvan Pass Study Group recommended to the Intermountain Regional Director of the National Park Service that the November 2007 Record of Decision on Winter Use in Yellowstone National Park be amended to keep Sylvan Pass open in future winter use seasons to motorized and non-motorized oversnow travel between December 22 and March 1. The group recommends continued use of a combination of avalanche mitigation techniques, including forecasting and helicopter and howitzer dispensed explosives.

This recommendation to operate within a defined core season will reduce risk, improve safety, and maximize visitor access.

The Sylvan Pass Study group reached agreement based on the following guiding principles:

- 1) That the safety of visitors, guides and National Park Service employees is the first priority in any avalanche mitigation operation on Sylvan Pass.
- 2) That snowmobile and snowcoach motorized oversnow winter use access should be as regular and predictable as possible given weather constraints.
- 3) That regular communications between Yellowstone National Park, the City of Cody, Park County, the State of Wyoming and the Cody community is a key ingredient of any future winter operations on Sylvan Pass.

The City of Cody, Park County, and the State of Wyoming agree, in good faith, to work cooperatively to explore funding of safety and access improvements.

The members of the Sylvan Pass Study Group agree to establish consistent ongoing communications regarding Sylvan Pass winter use operations.

The National Park Service agrees to make funding for safety and access improvements on Sylvan Pass a priority.

An amendment to the November 2007 Record of Decision, which reflects the above recommendation, was signed in July 2008. A key provision of the ROD Amendment states:

As a result of meetings between the National Park Service and the State of Wyoming, Park County, Wyoming, and the City of Cody, Wyoming, Sylvan Pass will be open for oversnow travel (both motorized and non-motorized) for a limited core season, from December 22 through March 1 each winter, subject to weather-related constraints and NPS fiscal, staff, infrastructural, equipment, and other safety-related capacities. A combination of avalanche mitigation techniques may be used, including forecasting and helicopter and howitzer dispensed explosives. The results of previous safety evaluations of Sylvan Pass by the Occupational Safety and Health Administration (OSHA) and an Operational Risk Management Assessment (ORMA) will be reviewed and updated, and the NPS will evaluate additional avalanche mitigation techniques and risk assessment tools in order to further improve safety and visitor access.

Other Litigation:

In another active litigation on the 2004 winter use plan, the group Save Our Snowplanes had filed suit on March 29, 2005, in the U.S. District Court for the District of Wyoming, alleging the decision to ban snowplanes from Jackson Lake in Grand Teton National Park violated the Administrative Procedure Act. On June 27, 2007, Judge Downes in Casper, Wyoming, ruled in favor of the NPS. The ruling was appealed to the Tenth Circuit Court of Appeals in Denver, oral arguments were heard in March 2008, and the case is pending.

Other accomplishments:

Mike Yochim continued writing an administrative history of the Yellowstone winter visitor use issue, which was accepted for publication by the University of Kansas Press. The book will be titled *Yellowstone and the Snowmobile: Locking Horns over National Park Use.*

Comprehensive Planning and Design

Establishment of a new Comprehensive Planning Team

Team selection and integration occurred for the newly formed comprehensive planning and design team established to address parkwide planning. As facilities age and visitation patterns change, a need was identified to address the development and redevelopment of areas within the park. A comprehensive vision was desired to protect resources and enhance visitor experience. Eleanor Clark was selected as the chief of comprehensive planning and design. Lynn Chan, Dale Reinhart and Zehra Osman served as members of the newly formed Comprehensive Planning and Design Team for the park. The team's establishment met Core Operations goals in the restructuring of a larger temporary division.

Foundation for Planning

The team worked with members of other divisions to assemble a draft Foundation for Planning that addressed the significance of resources and values fundamental to Yellowstone found in areas across the park. This umbrella document provides the guidance for all the future comprehensive plans as they relate to existing enabling legislation and other guiding documents.

Tower-Roosevelt Comprehensive Plan/EA

The team continued to refine the Tower-Roosevelt Comprehensive Plan/EA to be used as a template for future comprehensive planning in the park. Planning components were developed that provided limits of acceptable change and included planning zones, planning prescriptions and design standards. The team worked to write the plan and establish the various components of the plan. Since the plan was a fairly new effort, terminology and concepts were evolving.

Parkwide Comprehensive Planning

The team worked with park staff and the management team to establish criteria for evaluating parkwide needs for comprehensive planning. They presented a matrix that was used to evaluate the potential areas in the park and to determine the three areas that would be best served by the comprehensive planning process. Old Faithful, Lake/Fishing Bridge/Bridge Bay, and Mammoth/North Entrance were selected.

Lake Charrette Document

After the spring 2007 charrette, a compilation of the resulting concepts was assembled by Montana State University (MSU) staff members in a book which was printed and sent to all the participants. Comprehensive planning team members worked with MSU partners to complete this document. The concepts from the charrette will be used later during the comprehensive planning for the Lake area.

Cultural Landscapes Program

As a resource for comprehensive planning, cultural landscape inventories were completed for several areas in the park. These contracted documents met the GPRA goals for cultural landscape resources in the park; 10 of 41 cultural landscapes were inventoried and found to be in good condition. Comprehensive Planning and Design staff served as contracting officer's representatives for all the contracted work. The Artist Point cultural landscape was renovated and the condition improved. Cultural landscape inventories were provided for Tower Ranger Station and Roosevelt Lodge Historic Districts. Old Faithful and Fishing Bridge cultural landscape inventories are underway.

Artist Point Restoration Project

As a partnership project with Federal Lands Highway Program funding and a grant from the Yellowstone Park Foundation, a significant cultural landscape and historic overlook were renovated. Parking associated with the project area was enhanced, redesigned and the visitor experience improved. The masonry work and cultural landscape restoration occurred at this site protecting a resource that celebrates the artistic work of Thomas Moran, whose painting of the Grand Canyon of the Yellowstone influenced the establishment of Yellowstone National Park and the National Park Service.

Sylvan Pass Road Project

One of the comprehensive planning and design team members continued to lead this road project, providing consultation and facilitation for the design, restoration and mitigation of resources on the multimillion dollar road project. The staff worked with Federal Highway Administration staff to complete this project.

Administration

Budget, Finance, and Central Fee Collections

For FY2008, the park obligated a total of \$84M, including \$32.7M in base funds, \$21M in other appropriated funds (Line Item Construction, ONPS projects, Repair/Rehab., and a new appropriation for Centennial Challenge funds), \$8.1M in visitor, special use, filming, and concessions franchise fees, \$5M in concessions utilities and other reimbursable accounts, \$11.1M in donations and grants (including \$9M for construction of the new Old Faithful Visitor Education Center), \$1.9M in Federal Lands Highway Program support funding, \$2M for wildland fire, and \$2.2M from government furnished quarters and school accounts.

Staff changes in FY08 included the departure of Danel Nickerson, Financial Support Technician in October 2008. Teresa Fischer was selected for the Finance Officer position in February. Teresa transferred to Yellowstone from the Bureau of Reclamation. Debbie Van De Polder was selected as Financial Support Technician in May 2008; Debbie transferred from the Safety Office.

Workload statistics for FY2008 included:

Travel Vouchers	1557
Training Forms	44
Permanent Change of Station Travel Vouchers	13

Bills of Collection	585	
Official Receipts	298	
Pre-Authorized Debits	439	
Deposits (both fees and administrative)	257	(totaling \$24.0M)
Income Transfers (credit card income)	20	-
Third Party Drafts issued	586	(totaling \$125,410)
Excise Tax refund reports	5	(totaling \$21,640)
Utility payments	332	(totaling \$1,196,158)
Miscellaneous vendor payments	398	(totaling \$88,953)
GSA Rental payments	12	(totaling \$292,175)
GSA Fuel reimbursements	12	(totaling \$95,750)
GSA Work order payments	12	(totaling \$2,345)
AD Payments (incidental employees)	33	(totaling \$18,644)
Tort Claims	7	(totaling \$7,578)
Quarters to Account ETs	6	(totaling \$113,065)
OAS Payments	49	(totaling \$521,243)
Number of Charge Card Holders	394	
Number of Accounts tracked	1,300	
Number of Fund Sources Managed	20	

Contracting

#Actions	Amount	Warrant Level
28	\$726.466.92	III
65	\$7,528,486.25	II
31	\$3,031,006.16	IB
280	\$ 1,592.535.60	IB
43	\$3,355,056.94	NA
79	\$326,461.04	Pending
28	\$40,054.98	Warrant lost 1/09
9	\$289,500.00	
563	\$14,570,565.37	
323		
151		
55		
34		
563		
	28 65 31 280 43 79 28 9 563 323 151 55 34	28

Office Services

In 2008 Office Services (OS) continued with a staff of two. On some days during the summer months they were able to borrow two people from the fee collection office for 2 hours to assist with printing and copying requests.

During the year OS processed 22,181 pieces of outgoing mail through the mail meter machine for Yellowstone National Park, down 2,155 from the previous year. 530 pieces were sent by certified mail requiring extra handling time and costs.

Required background checks cost an additional \$2,232.39 for Human Resources letters sent out using certified mail with return receipts.

After a large decrease in 2007, lost and found packages increased again this year from 93 to 122 pieces, at a cost of \$408.36 to return the items to their owners.

\$204.35 was spent mailing 123 packages of fishing permits to vendors for them to sell. Although there was an increase in the number of packages mailed out, the cost went down by nearly \$15 due to careful planning by both Visitor Services and Office Services staff.

3,129 informational packets were mailed by bulk mail amounting to a savings to the government of \$499.07 and \$1,297 trimmed from Yellowstone's postage budget. The number of informational packets sent decreased by 304 from the number mailed out the previous year. Another 11,112 pieces of mail were sent out using presorted, automation methods to cut \$16,416.33 from Yellowstone's postage budget. Time spent doing bulk-mailings is money saved from Yellowstone's postage budget. OS staff is very conscientious and continually strives to do business in the most cost-effective manner.

The park's incoming mail included 52,470 letters; 42,685 flats, and 2370 parcels for a total of 90,025 pieces of mail that was picked up from the post office, sorted and distributed. Both letter and flat categories were down slightly from the previous year, while packages showed an increase. This figure does not include inter-office mail that was sorted and distributed.

A total of 1,411,612 copies were run on the two high-speed copiers in the mailroom and another 77,218 color copies were made.

717 pieces of outgoing correspondence were logged into the database then filed into the central files system for the year 2008. Totals were not kept of the newspaper clippings, all employee notices, etc. that were also filed.

Summary

Total incoming mail: 90,025 (decrease of 17,315)

Total outgoing mail through mail meter: 22,181 (decrease of 2,155)

Total outgoing mail sent bulk: 14,241 (decrease of 6,418)

Total color copies: 77,218 (decrease of 3,097)

Total black & white copies: 1,437,019 (decrease of 1,327,648)

Technology Services

Alarm Group

- New Fire Alarm System Installations at 17 locations throughout the park, which included design, procurement, installation, and AHJ acceptance. Just a few of the locations included the YCR, West Contact Station, Madison Ranger Station, and Lake Mess Hall
- New Security Alarm System and Video Camera Installations at six locations throughout the park included, procurement, installation, and acceptance. Just a few of the locations included the Canyon Ranger Station, West Entrance License Plate Camera, and the North Entrance Security System
- Continued annual tests of 172 NPS Alarm Systems (testing program initiated in FY 2006).
 Resolved 1,849 deficiencies identified in annual tests and trouble reports on 172 NPS alarm systems.
- Installed Alarm Panels to Monitor Veeder-Root Fuel Monitoring Systems at seven Fuel Storage Sites at Grant Marina Generator and Lake Hospital Generator.
- Staff Training included five members receiving NICET Certification or advancing to the next level of Certification. Ten staff members attended Bosch Security and Fire Alarm Systems training.

Radio Shop

- Portable Racal Radio Maintenance which included repairing, reprogramming, updating of 198
 Racal portable radios were sent for factory repair. Twenty-three mobile radios were installed in
 vehicles and 22 mobile radios were removed from vehicles.
- Installed new solar charging systems and external antennas at six remote backcountry cabins.
- Reclaimed view shed on Bunsen Peak by removing eleven abandoned antenna masts and associated translator shelters from the mountain.
- Trained 400 seasonal employees on radio systems and radio equipment use.
- Radio personnel completed the installation of ten additional CCTV cameras in the HRC building in Gardiner.

CSS\Phones

- New constructions projects completed included West Entrance Station Building, West Entrance Contact Station Building, and Mammoth Justice Center which included installing network and phone equipment.
- Installed new Telephone/Voice Mail Systems at Snake River Ranger Station.
- Continued the Definity PBX Port Consolidation, which reduced maintenance expenses.
- Continued VOIP phone migration thru out the park in areas such as the Mammoth Garage, North East Entrance and HRC. This has improved the customer user experience and continued to reduce the monthly park phone bill.
- Continued Cabling/Patch Panel replacement project at various location throughout the park.
- Tracked FISSA training for approximately 900 computer users.
- CSS\Phone had 7580 work requests with 7326 resolved this year. The requests included 1487 Employee Check in\Out, 455 Lotus Notes, 399 Network, 378 Phone, 372 ID Cards, 230 Computer setup\install, 207 printers and 51 Cell Phone work requests.

• Installed new backup server and 30 TB network storage array. The new network storage array allows the addition of more data storage to the existing Mammoth servers which will increase their life cycle.

Projects involving all of Technology Services

- Buried conduit and installed fiber and telephone cable from West Contact Station to West Ranger Station @1,800 feet. Buried conduit and install fiber and telephone cable from West Entrance Station to West Ranger Station @850 feet. Completed pulling new copper and fiber into the Northeast Entrance conduit system, used by the radio system, computer system, telephones and alarm systems. These cabling projects have improved reliability, increased access speeds, and allowed the park to drop Qwest circuits and save money.
- Completed Superintendents Conference Room and Garage Conference Room AV Wiring of projectors, TV's & screens.
- Technology Services supplied support services for the LeHardy and Owl Fires, which included phones, radios and computers at the fire camps

Human Resources

Leave Share Recipients	9
Background Investigations completed	341
Drug Tests completed	156
Drug Tests completed	130
Orientations (parkwide)	3
New Employee individual orientations	29
Retirements	8
Retirements	0
Death	1
OWCP cases	74
Tel Trainings	56
Ter trainings	
Training Hours	14,228
Volunteers	3003
Volunteer Hours	117,067
volunteer flours	117,007
Announcements	115
A D 11	5700
Apps Rec'd	5709
Positions Filled – perm/term	47

FPPS actions	2745
Classifications	25
EO Complaints	1 ? (Lindstrom)
Grievances	0
Mediations and counseling sessions	15
5	
Disciplines	5
DVD	
PIP	0
Handahin Tuanafan	1
Hardship Transfer	1

 Additionally, the Yellowstone Human Resources Office took over the lead for the Northern Rockies Supporting Human Resources Office in August 2008 and is continuing the process of bringing a new HR organization into existence. The office assistant spent many hours cleaning out OPFs so they would be ready to be scanned in FY09 for implementation of e-OPF. The HR office also began using e-QIP, an automated background investigation software, to submit background investigations to OPM.

Property Management

Property Management (PM) acquired over \$73,970.00 (fair market value) in excess items to include a forklift, wrecker, and six vehicles. The items were received at no cost.

In cooperation with the Ranger Division and Xanterra, PM processed 7,815 lost and found items. This process involved donations to the Montana Rescue Mission, conversion of items to government property, and sale of remaining items on the GSA internet auction website.

Reports of Survey (DI-103) & Cert. of Unserv. (DI-103A) NPS	77 each
Reports of Survey (DI-103) & Cert. of Unserv. (DI-103A) Xanterra	49 each
Report of Excess Property (SF-120) by lots, including Xanterra	9 each
Report of Excess Property for Sale (SF-126) by lots, incl. Xanterra	64 each
Transfer of Property (DI-104) to and from YELL	
(incoming & outgoing)	7 each
Receiving Reports (DI-102)	18 each

Status of Barcoded Accountable Property Items:

Formal NPS items	3910 items	Value: \$30,712,680.89
Formal Xanterra items	374 items	6,070,382.19
Informal NPS items	5895 items	5,131,800.05
Informal Xanterra items	2044 items	2,160,666.50

WIIDS Radio Equip. Inv. 1399 items UNKNOWN

Total items: 13,622 Total Value: \$44,075,529.63

WIIDS Inventory (Web-based Informal Inventory Database System) Tracked under the WIIDS program is the Radio Equipment Inventory. The program does not allow you to get a total dollar amount for the items entered into the system. The 1399 items are included in the item total above but I'm not able to provide a dollar value at this time.

Sales FY 2008

In FY 2008, PM sold 69 lots, for a total of \$72,590.00. These sales were conducted on the GSA internet auction website.

Barcodes Issued (does not include Xanterra Gov't barcodes)

10-1-2007 to 9-30-2008

Formal numbers NP1200116614 through NP1200116845 232 each Informal numbers NP1200113870 through NP1200114011 142 each Total barcodes issued for FY 2008..... 374 each

Supply

Shipments received and processed (does not include deliveries made by local companies such as parts stores, lumber deliveries, steel deliveries, etc.)

FedEx (ground) 1,502 packages FedEx (air) 817 packages

United Parcel Service 7,333 packages...(of these, 2,182 were NPS Uniforms)

Motor Freight 432 pallets

United States Postal Service 256 packages

TOTAL 10,340

Forklift 107 hours

Concessions Management

The primary role of the Concessions Management Division is to provide oversight for the commercial operations within the park, which includes protecting and preserving over 900 facilities assigned to concessioners, many of which are historic. The Concessions Management Division ensures there is an opportunity for park visitors to have a quality experience in commercial facilities and participating in commercial activities within Yellowstone National Park. Yellowstone National Park's Concessions Management Division has professionals on staff that is often requested to serve on national task forces, provide leadership as instructors in NPS training, and provide leadership and guidance at national meetings and to WASO staff, Regional staff and other parks.

The Concessions Management Division has taken the lead in developing a concessions management system to schedule condition assessments, track possessory interest and determine leasehold surrender interest for all assets assigned to commercial operators. The National Park Service spends approximately \$250,000 annually for condition assessments to evaluate buildings and determine deferred maintenance. Xanterra Parks & Resorts and Delaware North Parks and Resorts submit annual projects which identify the curing of those deficiencies. Each concessioner also develops a five year strategy to identify capital projects which will impact the Repair and Maintenance Reserve as well as capital improvements as identified in their concession contract facility improvement programs. Concessions Facilities Improvement Programs and Maintenance Reserve funding are instrumental in the preservation of facilities. Major renovation has occurred at the Old Faithful Inn with structural, seismic and room reconstruction completed on the East and West Wings (Old House, lobby and dining areas). Funds available to complete this project were both NPS and Concessioner. Additional capital improvement projects have been approved or are identified in their planning documents such as renovation of the Old Faithful Lodge lobby and offices, renovation and stabilization at Tower Fall Store and the Lake Store. Concessioners also submit cyclic projects which include a cyclic plan for building maintenance and repairs.

Staffing:

Permanent Full Time

Chief, Business Management Division, GS-1101-14 (Jennings)

Financial Analyst GS-1101-11 (Gallagher)

Concessions Management Specialist, GS-1101-13 (Murphy)

Architect GS-801-11 (Dawson)

Concessions Management Specialist, (Database Mgt.) GS-1101-09 (Smith)

Concessions Management Specialist, GS-1101-12 (Reinhart)

Concessions Management Specialist, GS-1101-11 (McAdam)

Concessions Management Specialist, GS-1101-09 (Williams)

Administrative Assistant, GS 1101-06 (vacant)

Term/Seasonal Positions Administrative Assistant GS-5 (Good) Seas

Other Positions

Sanitarian (Public Health Service) (Larsen)

The four major concessioners (Xanterra Parks & Resorts, Delaware North Parks and Resorts, Medcor, and Yellowstone Park Service Stations), the winter operators (snowcoach and guided interpretive snowmobile tours) and summer backcountry outfitters and guides earned in excess of \$100 million in gross receipts in 2008.

Condition Assessments are conducted annually on approximately 20 percent of the concessioner assigned buildings in the park. This allows the NPS to complete updated conditions assessments on all buildings every five years. The goal of the service is to conduct these assessments on a location basis, lowering contracting fees and allowing the NPS to take a strategic look at facilities and planning of developed areas. These assessments include facilities such as the 100 year-old, Old Faithful Inn to a small storage shed. All data is entered into the NPS FMSS system. It is estimated that the concessioner is assigned facilities with an estimated replacement value of nearly \$300 million. A schedule of condition assessments was established which allow the park to complete comprehensive condition assessments on a five-year cycle.

Annual Overall Evaluations were completed for all concessioners. Concessioners provide some type of visitor service year-round. Delaware North Parks and Resorts provides a year round store at Mammoth; Medcor provides year-round medical services with a clinic at Mammoth and pay-at-the-pump gas services are available at all stations in Yellowstone. Xanterra operated 250 days during 2008. Yellowstone Park Service Stations had gas services staffed for 165 days. Medcor provided medical services at Old Faithful and Lake for 150 days. Outfitters and Guides operated from June 1 through October; though there are not trips everyday; these trips are dependent on trail conditions and weather; and winter operators (snowcoach and snowmobiles) offered guest services from December 15 to March 15. Winter snowcoach operators provide summer transportation as well. Overall complaints were at a minimal level (less than 30 complaints) for operations.

Xanterra Parks and Resorts is operating under a five-year concession contract executed on December 1, 2005. The contract will expire on November 30, 2010. Xanterra provides lodging, food and beverage service, merchandising, transportation, marina services, among other general visitor services. Through a Concessions Facility Improvement Program, Xanterra has completed renovation of 80 western cabins in the Canyon area. Annual and five-year maintenance plans were submitted by Xanterra Parks & Resorts outlining their capital improvement, cyclic and routine maintenance projects. The NPS review these plans, and is working with Xanterra to prioritize projects. These plans are critical in curing deficiencies identified in the comprehensive condition assessments and through evaluations such periodic evaluations and local walk-throughs.

Delaware North Parks and Resorts operate the Yellowstone General Stores. Their contract expires on December 31, 2017. They have completed renovation of the stores at Old Faithful (Upper and Lower Stores), Mammoth, Fishing Bridge, Grant Village and Canyon Village. Renovation and stabilization projects are on line for 2010 which include the Tower Fall Store, Lake General Store, and a men's dorm at Fishing Bridge, and renovation and accessibility for the Mammoth General Store. Renovation included researching and returning the stores to a historic concept; including structural review, replacing flooring, renovating bathrooms, merchandise space and eating areas.

Yellowstone Medical Services, (Medcor) is operating under an extension of one year to provide medical services within the park. A prospectus has been issued to continue these services. It is apparent that the medical services are critical to the park visitors, but are essential to park employees and residents of the greater Yellowstone Area. Xanterra and YPSS provide critical support to this contract to ensure services are available to their employees. Medical care and the appropriate mechanism to obtain it is a Servicewide concern; concession contracts in parks do not appear to be economically feasible.

Yellowstone Park Service Stations has been issued a new concession contract for a term of ten years. This contract was effective November 1, 2008. Pay at the pump service was instituted in all Yellowstone stations with the stations at Mammoth and Tower completed in 2009.

Winter Operations have been affected by the continual litigation in federal court regarding winter use. The guided interpretive snowmobile operators are under Commercial Use Authorizations with a term of up to two years. Snowcoach operations are under 10-year contracts. An allocation of 720 snowmobiles per day and 78 snowcoaches was set in the current rule and each snowmobile and snowcoach operator has a specific allocation. There were many days this season where the maximum allowable allocations were not reached.

Backcountry Outfitters and guides were issued 10-year concession contracts in March of 2004. Forty-five outfitters offer backcountry guided trips throughout the park. Operators offer both overnight and day trips and concessioners are providing a wide range of services. Some operators are only doing minimal trips

(two day trips per year) where others are providing extensive visitor services with more than 50 day trips and 20 overnight backcountry trips.

Commercial Use Authorizations for commercial operators to provide incidental business opportunities to park visitors which originate and terminate outside the park boundaries have been under a moratorium for approximately 15 years. The moratorium is in place pending a new commercial services strategy. Public Law 105-391 changed IBP's to Commercial Use Authorizations; regulations have not yet been issued for these permits. One hundred forty five companies are under Commercial Use Authorizations providing services that range from guided fishing, backcountry day hiking, towing, photography and artist workshops, and front country interpretive tours to wildlife tours. Approximately 165 operators are on a waiting list for a CUA. The moratorium was lifted for transportation services and towing which have minimal or no impact on park resources. Though there is some limit on most services, the park is reviewing its strategy on issuance of permits.

Facility Maintenance

Environmental Issues

The comprehensive greenhouse gas inventory, which was completed in 2007, continued to help indentify goals for the park's environmental program. Currently, park staff is working with the Yellowstone Park Foundation to foster partnerships that will result in financial support for instituting identified sustainability initiatives.

- In 2008, Yellowstone National Park achieved a 79 percent diversion rate from the landfill. This was accomplished through the following successes:
 - 1. <u>West Yellowstone Compost Facility</u>: This facility accepted over 2,400 tons of waste in 2008 and produced approximately 1,200 tons of compost.
 - Recycling: In partnership with all concessioners, the park recycled 2,119 tons of commodities, including: 279 tons of cardboard, 118 tons of paper, 22 tons of aluminum/steel, 318 tons of glass, and 44 tons of plastics. Additionally, over 150 tons of tires were recycled and 13,000 propane cylinders were diverted from the waste stream.
- <u>Alternative Fuels:</u> In 2008, Yellowstone National Park continued its use of bio-based fuels for all vehicles. Through calculations verified by the Montana Department of Environmental Quality, the park, by using these alternative fuels, reduced carbon dioxide emissions into the atmosphere by 522 metric tons in 2007.
- <u>Hybrid Vehicles</u>: Yellowstone and Toyota continue to foster a very successful relationship resulting in thousands of visitors being informed and educated about the latest in hybrid technology. Yellowstone National Park accepted an additional five hybrid vehicles from Toyota in 2008.
- <u>Employee Ride-Share Program:</u> Approximately 45 employees participate in a Ride-Share Program that helps reduce fuel consumption, improve safety by decreasing traffic on roads, and ease parking constraints in the park. During 2008, the bus logged more than 10,000 miles transporting employees to and from the workplace. The bus is fueled with bio-diesel.

- <u>Green Cleaning Products</u>: In 2008, the park purchased more than 700 gallons of environmentally preferable products.
- Renewable Energy: During 2008, the Lamar Buffalo Ranch obtained 75 percent of all its electricity from the sun through a photovoltaic system. The Lewis Lake Visitor Contact Station and ranger residence continues to use solar energy, reducing the need for a propane generator.
- <u>Fleet Operations</u>: Through a generous donation from Michelin Tire, the park converted selected trucks to more energy efficient tires. This has proven to substantially reduce greenhouse gas emissions in addition to fuel costs

<u>Yellowstone's Environmental Coordinating Committee (YECC)</u>: In 2008, the park formed YECC to create a group of employees that would represent all NPS and concession operations within the park. This eight-member group is responsible for guiding and tracking the park's overall environmental programs. Additionally, the committee sets goals, tracks progress/ milestones, and ensures consistent messaging to all employees.

ROADS

- The park road crew did a ten-mile, cold-in-place recycle of a section of road south of Grant Village.
- The park road crew chip sealed five miles of road in the Tower Junction area and ten miles at the South Entrance.
- Spring opening of all of park roads, as well as the Beartooth Highway, was completed on time.
- The park road crew milled and paved the Mammoth administrative area.
- The park road crew also overlaid a four-mile section on Swan Lake Flats.
- The Special Projects crew removed two transit homes and six trailers and hauled them to the landfill.
- The Special Projects crew also hauled 300-400 tons of non-recyclables and contaminants to the landfill.

Federal Lands Highway Program:

Norris-Madison Phase 3 FHWA road project (PMIS #54337) – WY PRA YELL 10(15) Madison to Norris, Segment B, was in the final stages of design during 2008 (through the plan-in-hand stage). All necessary permits were assembled for the project scope. Specifications were completed and scheduled for delivery to the FHWA Contracting Office in early 2009. This project is scheduled for a late-spring 2009 award.

Beartooth Highway, Segment 1, Phase 2 - Road reconstruction project at the Northeast Entrance.
 Landscape architect involved in all aspects of the second season of construction and as liaison with
 Western Federal Lands Highway Division (WFLHD) engineers. On-site construction observation
 and develop solutions for construction problems.

- <u>Beartooth Highway, Segment 4</u> Resurfacing and repair project including a small bridge replacement out to bid in 2008. Engineer and landscape architect involved in project design and as liaison with Central Federal Lands Highway Division (CFLHD) engineers.
- <u>Lamar River Bridge Replacement</u> Project is in design phase with park engineer and landscape architect coordinating development of alternatives with Western Federal Lands Highway Division (WFLHD) engineers and development of Environmental Assessment (EA).
- North Rim Drive and Canyon Area Roads / South Rim Drive / Camper Services 2007-08;

Completed Fall 2008; in partnership with Western Federal Lands Highway Division (WFLHD), Yellowstone National Park Road Team and Landscape Architects, Yellowstone Park Foundation and HK contractors, this project received the 2008 FHWA awards for best design and construction (category large project 2008).

Highlights of the project include restoration of three historic overlooks of the Grand Canyon of the Yellowstone (Artist Point- South Rim, Lookout Point, and Grandview- North Rim) and the rehabilitation of a half-mile accessible trail between Lookout and Grandview. Enhancements to the area focused on visitor safety, visitor experience, resource protection, traffic congestion, cultural resource protection and Universal Accessibility.







- <u>Dunraven Pass</u> Documented revegetation success of previous year's planting, for mitigation purposes, of 3,000 bare root whitebark pines, *Pinus albicaulis*.
- Beartooth Highway, Segment 1 Work continued from the Northeast Entrance to Cooke City with input from landscape architect.
- <u>Madison-Norris, Phase B</u> Design collaboration continued with WFLHD and Yellowstone Road Team on bridge design and the Gibbon Canyon riparian and upland restoration plan.

Other Projects

- <u>Wireless Telecommunications EA</u> Yellowstone landscape architect wrote the Visual Effects portion of the EA, including photographs.
- Alternative Transportation Solutions for Traveler Information Western Transportation Institute
 partnered with Yellowstone landscape architect to plan experimental technologies to improve
 dissemination of real-time information to visitors. Technologies include 511 phone system,

ridesharing software, employee shuttle, portable electronic signs, highway advisory radio, weather radios in campgrounds, etc.

- North Entrance Gateway Community Improvements Landscape architect involved in project planning and design to improve vehicular and pedestrian circulation and safety, provide barrier-free access and enhance the visitor experience at the entrance to the park.
- <u>Stephens Creek Nursery</u> Propagated 2,092 potted grasses, forbs and shrubs for future use on East Entrance road, Canyon Visitor Education Center and Artist Point, West Entrance Station, Mammoth and other areas. Rooted 184 willow cuttings for East. Transplanted 83 small Douglas fir trees at the nursery for future use in Mammoth area. Planted tree spade trees at Canyon Ranger Station, Mammoth, and Old Faithful Lower General Store.
- Constructed wood signs for Artist Point and started large entrance sign for West Entrance.

Building Projects

Major on-going contracted construction projects included:

- The West Yellowstone Contact Station completed in July 2008.
- The West Entrance Station completed in August 2008.
- **Mammoth Justice Center -** dedicated in August 2008, and the tenants moved in during September 2008.



- **South Entrance Seasonal Four-Plex -** completed except for remaining utility work, which will be done by NPS crews.
- Old Faithful 8-Plex The electrical service line was installed, the sewer and water stub-outs were in place, backfilled and tested, the radon piping is installed, and the site is ready to receive modules in the spring of 2009.
- Old Faithful Visitor Center –By the end of 2008, the structural steel was 98 percent complete and the contractors met their goal of having the structure weathered in by winter.



• Old Faithful Inn, Old House West Wing Rooms Renovations were largely completed during 2008, including re-roofing.



Craft Shop accomplishments for 2008 are as follows:

- Canyon Lift Station Rehabilitation
- West Thumb Warming Hut Renovations
- Grant Sludge Drying Beds construction
- Parking lot lights at Lake Post Office
- **Grant Visitor Center Rehabilitation** involved adding a new addition as well as remodeling the existing building.
- Turnover of 16 quarters in the Mammoth area

Asset Management

Yellowstone began the execution of the park's Park Asset Management Plan (PAMP) by completing Facility Operations (FO) and Recurring Maintenance (RM) Planning Tables for all the assets in the following districts: West, Grant, Lake, and Canyon. The North District and all road asset FO and RM Planning Tables will be completed in 2009.

During the summer season, a three-person condition assessment team performed a comprehensive accessibility condition assessment on all the NPS-operated public buildings. Deficiency work orders were created and estimated in CESS. Comprehensive condition assessments and habitability surveys were performed on all NPS housing units in order to comply with the Housing Improvement Program (HIP). Rents in QMIS were calculated according to the HIP scoring and habitability survey.

All new facility projects in the Service-wide Comprehensive Call (SCC) were entered into the Project Scoping Tool (PST) and received a DOI score.

The park continues to perform quality assurance/quality control on the FMSS data.

Resources Stewardship

Budget and Personnel

The Yellowstone Center for Resources (YCR) was allocated a FY2008 base operating budget of \$4,917,700 with a staff of 75 full-time-equivalent employees. The base allocation was 59 percent of the total YCR budget for FY08. Additional monies came from Recreation Fee Demonstration funds, the Fishing Fee program, the Federal Lands Highway Program, the Special Emphasis Program Allocation System, private sources, other National Park Service (NPS) funds, and other federal funds. Sixty-one assistance agreements and task orders were processed in FY08, for approximately \$2,262,400 in total agreements activity.

Resources Stewardship Natural Resources

Air Quality

The NPS Air Quality Division's 2007 Annual Performance and Progress Report, which presents data collected from 1998 through 2007, indicated that no measured Clean Air Act standards were exceeded in Yellowstone. However, as at many monitoring sites in the West, a statistically significant increase of ammonium in precipitation has been found in the park. The reason for this increase has not been determined, but it may be related to agricultural activities, coal-fired power plants, or oil and gas development.

Most of the air quality monitoring in Yellowstone pertains to winter use at the West Entrance and Old Faithful. The combination of fewer snowmobiles entering the park and reduced emissions by snowmobiles meeting the Best Available Technology (BAT) requirement has greatly reduced carbon monoxide and particulate matter concentrations since 2003. However, although air quality at Yellowstone meets EPA standards to protect human health, CO levels are sometimes above natural regional background levels in areas near vehicle routes, especially during the winter.

Geology

Compared to a range of 872 to 3,172 earthquakes per year during the 1995–2007 period, 2,317 earthquakes were detected in the park in 2008. No geyser-basin scale changes were noted. The Old Faithful eruption interval remained at 90 to 91 minutes and Steamboat Geyser did not have a major eruption. Hydrothermal explosions occurred at Biscuit Basin, Ferris Fork Hot Springs, and the Mushpots in Pelican Valley. Work continues on Yellowstone National Park's Geothermal Monitoring Program, and progress is being made in documenting the status and trends of the park's geothermal system by measuring the total amount of thermal water and the total heat output for selected geyser basins.

Resource management staff monitored 81 areas in the geyser basins weekly and used custom-made hand tools to remove the thousands of items that had been thrown or dropped in the thermal features, from cigarette butts to articles of clothing. A geothermal resource protection and visitor safety flyer was developed and distributed parkwide at seasonal orientation training and to park concession employees. As part of a cooperative program with the U.S. Geological Survey monitoring geothermal activity, staff assisted with the collection of water samples at 11 locations throughout the year.

Vegetation

Inventory and monitoring. Park staff has met the servicewide inventory and monitoring goal of documenting at least 90 percent of the park's 1,350 vascular plant species and incorporating the information into the NPSpecies biodiversity database, which now includes the approximately 9,500 specimens in the park's herbarium. During the 2008 field season, 185 vascular plant specimens were collected for addition to the herbarium to document the native flora in under-collected portions of Yellowstone and non-native species.

To prevent negative impacts on rare plant populations, park staff conducts surveys prior to construction projects, trail re-routes, and other activities that will disturb the soil. In addition to complying with statutory requirements, these surveys collect valuable data: 250 additional sites were documented during 2008 for the GIS layer of Wyoming species of special concern and plants that are rare in the park. Summer fieldwork for Federal Highways Administration (FHWA) projects took place primarily in the Old Faithful area, where 473 sites containing rare species have now been documented; plant communities with species of special concern occupy habitats that include thermally heated sites, wetlands, and barren black obsidian sand.

Non-native plants. No new non-native species were reported in the park in 2008, but many of the 218 known established non-native species continued expanding their ranges. From early June through mid-October, park staff, interns, and volunteers surveyed approximately 3,000 acres, of which more than half were infested with non-native plants. Within this infested area, 38 species at 1,425 locations (totaling 100.6 acres) were treated using chemical or mechanical means.

Gardiner Basin restoration. Park staff has begun a pilot project to restore former agricultural fields on park land along the Yellowstone River corridor near the park's north boundary to native vegetation that will benefit pronghorn antelope and other wildlife. With financial support from Recreation Fee Demonstration funds, 23 acres were fenced with the expectation that the fencing will remain for approximately 10 years to keep wildlife out while native vegetation is re-established.

Insect infestations. The primary cause of tree mortality in the park is native bark beetles. Although both Douglas-fir beetle and Engelmann spruce beetle activity have declined since 2000, mountain pine beetle activity in high-elevation whitebark pine forests remains at epidemic levels. An effort to determine what, if any, influence insect infestations may have on landscape-level fire patterns and vice versa continued in 2008 through agreements between the Rocky Mountains and Great Lakes Cooperative Ecosystem Studies Units and three university-affiliated researchers. In cooperation with the U.S. Forest Service (USFS), resource management crews deployed well over 100 pheromone traps for gypsy moths throughout the park; unlike in previous years when some moths were found, none were detected in 2008.

Impact of mountain goats. Through a cooperative agreement with Idaho State University, a three-year NRPP-funded project was initiated to evaluate potential impacts of non-native mountain goats on alpine vegetation in the northeast portion of the park. Park staff conducted three aerial surveys to monitor the abundance, distribution, and demographics of mountain goats to provide the information needed for evaluating management alternatives and developing an adaptive management plan to protect the alpine ecosystem. The 2008 surveys confirmed that mountain goats were present southeast of the Soda Butte Creek drainage, a place where they had rarely been reported.

Other research. The controversies surrounding the status of woody vegetation on the northern range (aspen, willow, and cottonwood) as it has been affected by changing elk population levels and wolf reintroduction continues to generate research interest. A two-year study of temperature influences on willow growth in Greater Yellowstone areas with varying wolf and elk densities throughout Greater Yellowstone and a three-year study of bird species diversity in willow communities of varying structure and size were completed in 2008.

Aquatic Resources

The top priorities for the park's Fisheries Program are the preservation of Yellowstone cutthroat trout (YCT) in Yellowstone Lake and restoration of fluvial populations of native trout, many of which have been lost because of non-native species introductions.

Yellowstone cutthroat trout preservation. Long-term monitoring of the Yellowstone Lake ecosystem indicates a substantial decline in the number of YCT since 1988. By 2007, the number of upstream migrating YCT in Clear Creek, one of the largest spawning tributaries to Yellowstone Lake, had declined from 54,928 to 538. Because of damage to the Clear Creek fish trap during high spring flows in June 2008, a complete count of the cutthroat trout spawning run could not be conducted. YCT in Yellowstone Lake have been monitored annually through fall gill netting since 1969. Although approximately 38 percent of the 2008 catch consisted of fish greater than 330 mm in total length (the minimum length at which cutthroat trout in the lake system are thought to mature), what has been missing in recent years is the pulse of 200–250 mm range fish continuing into adulthood.

Efforts to reduce the population of non-native lake trout in the lake, which began in 1995, got underway later than usual this year because of cold spring weather, yet a record number of lake trout (76,136) were removed during 2008. In August, park managers convened 15 fisheries experts to evaluate the lake trout suppression program; they concluded that the YCT population in the lake is still declining and recommended additional netting of lake trout and consideration of other removal techniques.

Westslope cutthroat trout. The two known genetically pure Westslope cutthroat trout (WCT) populations in the park and Upper Missouri River brood stock from a hatchery were used in 2007 and 2008 to stock High Lake, which had received piscicide treatments to remove the non-native fish with which it had previously been stocked. Subsequent monitoring indicated initial success of the 2008 stocking efforts: an abundance of fry were visible in the inlet streams and various locations around the lake margin, and adult fish were seen cruising the littoral zone feeding on aquatic invertebrates. In preparation for WCT restoration in East Fork Specimen Creek below its outlet from High Lake, a fish barrier was constructed and the stream received piscicide treatments to remove the non-native fish and hybridized WCT. Monitoring of sentinel fish placed in cages in the stream indicated the success of both the piscicide treatment and the neutralization at the downstream end of the treated section.

YCT restoration on the northern range. In anticipation of future YCT restoration efforts, sampling focused on three creeks on the northern range. The absence of marked fish captured upstream of the lower Elk Creek cascades in 2008 provided additional evidence that the feature serves as a fish barrier. Information obtained from the 2008 fieldwork will be used to prepare the National Environmental Policy Act (NEPA) documents necessary to move forward with specific restoration projects.

Aquatic nuisance species. In addition to lake trout, two non-native species are having a significant detrimental effect on the park's aquatic ecology: the New Zealand mud snail and the parasite that causes whirling disease in fish. There is also a concern about the potential for Eurasian watermilfoil as well as zebra and quagga mussels arriving in the park on visitors' boats or fishing gear. Resource management staff educates visitors about the problem and develop inspection procedures and equipment cleaning methods. In 2008, a handout was designed to be given to all boaters that show what they have to do prior to launching.

Water quality. Water temperature, dissolved oxygen, pH, specific conductance, turbidity, and total suspended solids are monitored monthly at 11 stream and 7 lake sites in the park. Chemical parameters are collected from 10 stream sites. In 2008, 6 of the stream sites did not meet Environmental Policy Act (EPA) and/or state standards for pH, turbidity, or temperature in at least one monthly sampling. However, most of these exceedences are likely the result of natural rather than anthropogenic factors. Many stream sites have upstream thermal inputs that affect pH and water temperature.

As a result of elevated metal concentrations from previous mining activity upstream of the park, dissolved and total metals (arsenic, copper, iron, and selenium) in the water and sediment of Soda Butte Creek are measured at the park boundary during its annual high and low flow periods. Although the metal concentrations appear negligible, the water is at risk from upstream contamination during an extreme flood event. The site at Soda Butte Creek exceeded EPA and state standards for dissolved iron during a

September 2008 site visit. State and federal agencies are participating in a long-term plan to remove the mine tailings from the streambed.

Bears

Grizzly bear status. The estimated population of grizzly bears in the Greater Yellowstone Ecosystem (GYE) increased from 136 in 1975 to 596 in 2008, one year after the U.S. Fish and Wildlife Service (USFWS) removed this population segment from threatened status under the Endangered Species Act. The government agencies with jurisdiction over the grizzly bears have approved a conservation strategy for managing them. Of the 44 grizzly mortalities known to have occurred in the GYE in 2008, 14 were hunting-related (mistaken for black bear or in self-defense); other deaths were in defense of life or property (13), from natural causes (7), malicious killings (2), capture-related (2), a road accident (1), and undetermined causes (5). There were no human-caused grizzly mortalities in Yellowstone National Park in 2008.

The Interagency Grizzly Bear Study Team (NPS, USFS, U.S. Geological Survey [USGS], USFWS, and the states of Idaho, Montana, and Wyoming) continues to monitor population numbers, distribution, habitat use, reproduction, and mortality. About 10 percent of GYE grizzly bears are radio-collared; in 2008, 30 bears were captured for purposes of collaring. Another 36 grizzly bears were captured for purposes of relocation or removal because of conflicts with human activities; none of these bears were residing in the park.

Bear foods monitoring. Park staff monitors the availability of some key grizzly bear food sources: winter-killed carcasses, spawning cutthroat trout, and whitebark pine seeds. In 2008, a total of 116 ungulate carcasses were documented along 266 km of survey routes during April and May. Although an estimated 68 grizzly bears were known to prey on spawning cutthroat trout in at least 36 tributary streams of Yellowstone Lake in the 1980s, the decline of the cutthroat trout population as a result of predation by non-native lake trout and whirling disease has reduced the number of spawners to negligible levels. Trout spawning streams in the Lake and Grant areas were again closed to the public, but no evidence of grizzly bear or black bear fishing activity was observed during the 2008 surveys. As part of an annual survey, cone counts were conducted at 26 whitebark pine transects in the GYE. More than half of the trees that were alive in 2002 have died, primarily as a result of infestation by the native mountain pine beetle. Whitebark pine communities are also surveyed for the presence of the exotic pathogen white pine blister rust, which infects an estimated 25 percent of whitebark pine throughout the GYE.

Bear-human conflicts. Bear-human conflicts are defined as incidents in which bears damage property, obtain human foods, or injure people. Of the 190 grizzly bear-human conflicts that were reported in the GYE in 2008, 10 occurred in Yellowstone National Park. Including black bears and bears of unidentified species, a total of 26 conflicts were reported in the park. This compares to an average of 10.9 conflicts a year during 1994–2007. In 14 of the 2008 incidents, property damage occurred, but no food was obtained; in 10 incidents, food was obtained. The other two incidents, both involving grizzly bears, resulted in minor human injuries, one to a firefighter and the other to an electric utility employee. Bear-inflicted injuries during 1994–2007 averaged 1.5 per year. Park staff continues to emphasize prevention of bear-caused property damages and human injuries, and human-caused bear mortalities through public education, enforcement of food and garbage storage regulations, management of bear jams, hazing of habituated bears, monitoring of bears using radio telemetry, and trail closures when necessary. Two black bears had to be captured and euthanized in July 2008 because they had become aggressive after obtaining human food. The last bear-caused human fatality in Yellowstone occurred in 1986.

Bears moved into the park. Five yearling grizzly bears that had been frequenting residences north of the park were captured in the fall of 2008, radio-collared, and relocated into the park. The first two yearlings which had been orphaned the previous fall when their mother was shot by a hunter on Gallatin National Forest were captured by the state of Montana outside the park and released at Charcoal Bay on Yellowstone Lake; they eventually wandered south into the Bridger Teton National Forest. The other three yearlings were captured with their mother, who was over 20 years old, in poor health, likely

responsible for the mauling of several hunters, and had been relocated into the park twice. Because of the dangers associated with capturing an aggressive female bear with young in a residential area, park staff provided assistance in setting traps inside the park's north boundary. The mother was euthanized and the yearlings were collared and released in the park interior; within two days, the yearlings were seen near the park's north boundary.

Ungulates

Bison. Park staff participated for the eighth year in the Interagency Bison Management Plan with the state of Montana and the Animal and Plant Health Inspection Service and USFS. The plan is designed to manage the risk of brucellosis transmission from bison to cattle, conserve the bison population, and allow for gradually increased tolerance of bison outside the park on national forest land. The number of mortalities that occur as part of boundary control operations near Gardiner and West Yellowstone, Montana, reflects annual fluctuations in winter bison movements out of the park. When the estimated 2007 summer population of 4,700 bison encountered a winter of heavy snowfall, hazing efforts along the north boundary became ineffective because of the large groups making repeated attempts to cross it. A total of 1,728 bison were removed from the population, including 166 that were taken by hunters outside the park and 112 calves that were sent to a quarantine project being carried out by the state of Montana and the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (APHIS).

Elk. The Northern Yellowstone Cooperative Wildlife Working Group, which includes park staff along with representatives from Montana Fish, Wildlife and Parks, the USFS and the USGS, conducted its annual survey of the northern Yellowstone elk population. The winter elk count, which was approximately 17,000 in 1995, has fluctuated between 6,000 and 9,000 during 2003–08. The decline has been attributed to predation by reintroduced wolves, a growing bear population, hunter harvest, and possible drought-related effects on pregnancy and survival. The state of Montana has reduced the number of antlerless permits issued in recent years so that hunting now has little impact on population size.

Mule deer. The Northern Yellowstone Cooperative Wildlife Working Group has conducted a spring helicopter survey of mule deer on their winter range since 1986. A total of 2,414 mule deer were observed during the 2008 spring survey, which was similar to the last survey in 2005 and the highest count in 12 years.

Pronghorn. There have been concerns about the long-term viability of Yellowstone pronghorn since counts declined from 536 to 235 during 1992–95. Causes of this rapid decrease remain unclear, but fawn survival has remained low due to coyote predation. Development of private land outside the park has reduced available winter range. Much of the land in the park currently used by pronghorns as winter range is former agricultural land that is infested with exotic vegetation of low nutritional quality. The pronghorn count, which remained relatively constant during 1996–2006, reached 291 in 2007-08, the highest since 1993.

Wolves

Population monitoring. The year-end wolf population declined from 171 wolves with 10 breeding pairs in 2007 to 124 wolves with 6 breeding pairs in 2008. However, the USFWS goal of 30 breeding pairs in the Northern Rocky Mountain recovery area has been met and the gray wolf will be removed from the endangered species list in Idaho, Montana, and Wyoming after the states' wolf management plans are approved by the USFWS.

Three of the packs present in the park in 2007 dissolved and four new packs formed, but the average pack size was 9.3, compared to 14.2 in 2007 and the long-term average of 10. The largest pack had 25 wolves. To prevent human disturbance, the area around one den site was closed until July; three other den areas were closed coincidental to closures for bear management in the park. However, in 5 of the 11 packs that had litters, none of the pups survived; only 29 percent of the known pups survived until early winter. As in 1999 and 2005, the probable cause of poor pup survival was disease, likely distemper. At year end, 32 (26%) of the wolves in the park wore radio collars, including 28 wolves that were

captured and collared in 2008. As in previous years, the primary cause of death among collared wolves was intraspecific strife (10 out of 17 deaths).

Habituated wolves. In June, two wolves in Lamar Valley that had exhibited fearless behavior around people were hazed with rubber bullets, after which they were not seen again near people. In the interior, the Canyon pack showed fearlessness of vehicles along the road, usually when people drove up alongside of them. The Hayden Valley pack had previously exhibited similar behavior in the same area, where blow down and regenerating lodgepole pine may funnel the wolves along the road corridor. Attempts to haze the Canyon wolves were unsuccessful because they could not be located by park staff with hazing equipment while showing habituated behavior.

Predation. Park staff detected 576 definite, probable, or possible kills made by wolves in 2008, including 463 elk (80%), 23 bison, 19 deer, 13 coyotes, 11 wolves, 5 pronghorn, 3 moose, 3 grouse, 2 bighorn sheep, 2 ravens, 1 each of beaver, golden eagle, grizzly bear, cougar, red fox, and otter, and 26 unidentifiable animals. The number of elk killed per wolf on the northern range during winter study periods declined from an average of 1.8 in 1995–2000 to 0.9 in recent years. The decrease has been attributed to changes in prey selection (shift to bull elk), an increase in scavenging on winter-killed ungulates, and a possible decrease in the number of vulnerable prey available to wolves. However, consumption rates (the amount of food eaten per wolf) have not declined, probably because of the increase in the number of bull elk killed.

In collaboration with Michigan Technological University, Wolf Project staff continued to try to learn more about wolf predation during the summer. This is more difficult than winter predation studies because the packs are more cohesive during the summer, the wolves are less easily tracked without snow, bears are around to take over carcasses, and ungulate young are still so small that they can be quickly consumed without leaving evidence behind. Four wolves from two packs were equipped with radio collars programmed to collect data every 30 minutes that was downloaded weekly from May through July. Summer predation staff hiked more than 1,600 miles to locate clusters of data points, record the presence of wolf sign, carcasses scavenged upon by wolves, and at least 150 suspected wolf kills, of which almost 90 percent were elk; most of the other kills were deer. Both packs had elevated predation rates as winter weather extended into May; elk killed by wolves revealed poor bone marrow into June.

Genetics. A collaborative effort with the canid genetics lab at the University of California, Los Angeles, to analyze data on the genetics of wolves in the park continued in 2008, along with larger scale analyses of genetic diversity and gene flow among the three Rocky Mountain recovery areas for purposes of recovery monitoring as well as ecological understanding. This has been difficult because both the Yellowstone and central Idaho populations are descendants of the same genetic stock in Canada. Preliminary results show high genetic diversity within all three recovery areas, as well as ample genetic exchange between central Idaho and northwest Montana. However, low levels of gene flow between the GYA and the other two recovery areas highlight the importance of accurately identifying migrant (or offspring of migrant) GYA wolves.

Cultural Resources

Archeology

A program to identify artifacts that are becoming newly exposed at high altitudes because of decreasing ice and snowpack was initiated in June. An inventory in the Lake developed area identified 10 new sites and documented 5 previously known sites. The University of Montana archeological field school surveyed more than 1,000 acres in the boundary land area for National Register testing and documented 37 new sites with historic or prehistoric components, including several tipi ring clusters. In connection with the FHWA effort to widen and rehabilitate the Golden Gate to Norris segment of the Grand Loop Road, data recovery excavations were conducted at a site north of the Obsidian Cliff National Historic Landmark.

The second year of the Nez Perce Trail archeological survey recorded 15 new sites while concentrating on the Otter Creek area where an attack occurred, the Mary Mountain path of the Nez Perce, and the Parker Peak area where the Nez Perce began their flight eastward and out of the park.

Efforts to document the Nez Perce and Bannock trails are also using oral traditions and archival research. Surveys along trails used by Indians in the Indian Creek drainage documented 19 new sites.

Ethnography

With representatives from Grand Teton National Park, the National Elk Refuge, and invited tribes, Yellowstone managers conducted an Intergovernmental-Intertribal Information Exchange meeting on June 5, 2008, in Mammoth Hot Springs. The primary topic of discussion was the role of the NPS in bison management in Greater Yellowstone. A cooperative effort by the two parks, the National Elk Refuge, and the Bridger-Teton National Forest is studying the use of conical timber structures known as wickiups by native peoples.

Historic Roads

In conjunction with the reconstruction of the North Rim Drive, Recreation Fee Demonstration funds were used to restore the trails connecting the viewing areas of the Grand Canyon of the Yellowstone as boulder lined walks, matching the improvements made in 2007 at the Artist Point viewing area. Planning for reconstruction of the Lamar River Bridge was moved up on the FHWA schedule due to structural problems identified during the biennial bridge inspection program. An engineering study completed in 2008 has provided the information needed for park staff to identify the most appropriate and economical means of replacing the bridge.

Park staff also worked with the FHWA road and bridge design engineers to finalize the design and complete the National Historic Preservation Act consultation for the Tanker Curve re-route of a portion of the Madison to Norris segment of the Grand Loop Road. This rehabilitation and widening of the road includes repairs of the Gibbon Falls viewing area, construction of a new bridge over the Gibbon River, a much improved picnic area south of Gibbon Falls, an expanded and improved historic viewing area and interpretation at Gibbon Falls, two new viewing and picnic areas on the new alignment of the road, removal of two miles of abandoned road, and restoration of the landform along the river to its natural condition.

Historic Structures

Through a cooperative agreement with the Montana Preservation Alliance, documentation of historic cabins and other structures continued for determination of National Register eligibility and progress was made on Historic Structures Reports for the Lake Fish Hatchery, the Mammoth Nature Store, and the Albright Visitor Center. A cooperative agreement through the University of Montana was initiated to document the historical context of the park's Mission 66-era buildings and to draft a National Register Multiple Property Document with which to evaluate the many buildings within two years. Working with the Wyoming SHPO, park staff developed a Roofing Plan for Mammoth Hot Springs to guide future roofing projects while protecting the historical integrity of the area and providing fire-resistant and durable roofing material options. Work also began on the rehabilitation of the historic Mammoth Guardhouse which, in order to continue to be used as a jail, will need to have the cells replaced with modern containment areas that meet U.S. Marshall standards. Wyoming SHPO staff was instrumental in assisting with the design phase to ensure there will be no adverse effect to the historic structure. Rehabilitation of the Old Faithful Inn "Old House" was launched in 2008 along with planning for the rehabilitation of the Lake Hotel porch columns as research began for drafting a National Register National Historic Landmark Nomination for the hotel.

Yellowstone Heritage and Research Center

HRC staff accommodated 276 on-site research visits to the archives during 2008 and responded to 254 telephone, email, and written research requests. Of those 530 researchers and requests, 267 were from NPS employees. The librarians assisted over 1,000 researchers through on-site use of the library, reference questions answered via telephone or email, and interlibrary loans. Museum staff assisted over 100 researchers with historical photographs and other collection inquiries. The librarians increased the

number of stops made by the bookmobile to make the library collections and resources more accessible to employees in the park's interior.

NPS Cultural Cyclic funding enabled a conservator from Harpers Ferry Center to clean more than half of the taxidermied animals at the Fishing Bridge Museum, most of which had never been professionally cleaned before. She also trained curatorial staff on cleaning techniques, tested all specimens for arsenic, and provided advice on how to conserve specimens that are not in enclosed exhibit cases. The funding was also used to purchase UV-coated safety glass for the exhibit cases to mitigate light damages, new flooring to replace the asbestos tiles, and conversion of the oil furnace to more energy-efficient propane. With NPS Centennial Challenge and Yellowstone Park Foundation matching funds, 70 items from the collection have been sent off site to be professionally cleaned, stabilized, and rehoused to prolong their preservation and permit their display. These items include Moran's diary of his 1871 trip to Yellowstone and two of his sketchbooks, drawings by several artists who accompanied early expeditions or visited the park in the early days, and a volume of William Henry Jackson photographs. The park's research collections increased exponentially as staff worked closely with the Research Permit Office to ensure that research permittees comply with curatorial requirements for specimens they collect.

Through the Intermountain Region's Museum Management Program, Lynn Mitchell, the regional archivist, and Susan Ewing Haley, archivist and records manager at Golden Gate National Recreation Area, spent two weeks helping park staff improve the management and organization of the archives, obtain an accurate count of the park's archival holdings, and physically separate NPS records from National Archives records. Yellowstone Association funds enabled staff to purchase acid-free rehousing materials to improve the storage of many archival and library documents.

Staff hosted their third annual Elderhostel Service Program in 2008. Arranged through the University of Montana–Western, the February session included 12 participants who provided a total of almost 390 hours of volunteer assistance on much-needed projects. Volunteer help also made possible the creation of the Reference Print collection, organized by subject, which will provide easier access for researchers to almost 2,500 of the collection's most popular historical photographs.

Environmental Quality

By facilitating early participation in the compliance process by affected and interested parties both internal and external to the park, the Environmental Quality Branch ensures that park management decisions are informed in regard to compliance requirements and that any impacts to park resources that result from the project are mitigated. During 2008, this branch completed numerous exclusion documents under the National Environmental Policy Act for projects requiring minimal compliance, such as installation of utilities, hazard fuels reduction, and groundwater or resource monitoring well development; consulted with SHPOs for projects affecting historic properties in the park, and met threatened and endangered species consultation requirements, such as submitting an annual report on fire-related activities to the USFWS.

In preparation for the anticipated release of the final document in 2009, internal review of the first-ever service-wide Environmental Impact Statement examined whether the NPS should share in scientific and economic benefits when researchers discover or invent something commercially valuable from their research in a national park. Public scoping for the environmental assessment (EA) for replacement of the Lamar River Bridge on the Northeast Entrance Road and consultation with the Wyoming State Historic Preservation Office on the adverse effect of doing so began in July 2008. The Wireless Communication Services Plan EA, which was completed in 2008, looked at current and anticipated wireless communications systems needed in the park (two-way land mobile radio systems, cellular phone service, wireless internet services, and research and monitoring data transmitters) to assess the suitability and impacts of associated infrastructure in developed areas, along road corridors, and in backcountry areas. Public meetings on the EA were held in Bozeman, Montana, and Idaho Falls, Idaho.

Professional Support

Research Permits

During 2008, Yellowstone's Research Permit Office issued 191 research permits to scientists from 32 U.S. states and 7 foreign countries. This was the second consecutive year in which the number of permits dropped below 200; many scientists have had to suspend their research due to lack of funding. However, the number of permits issued for new projects has remained stable. Thirty investigators reported the conclusion of their studies and submitted their research findings and publications to the park. Park staff was able to accompany several research groups in the field, providing a better understanding of the projects' needs as well as ensure that no park resources were harmed.

Resource Information

Through a variety of print and electronic communications, staff contribute to the scientific body of knowledge about the park, discussion of park issues and policies by a variety of participants, and promote resource conservation and visitor enjoyment through improved understanding of ecological issues. The Greater Yellowstone Science Learning Center (GYSLC) which receives support from the Yellowstone Park Foundation and Canon U.S.A., Inc., has been recognized as a servicewide model for a website strategy for NPS Research Learning Centers and Inventory and Monitoring Networks.

In its sixteenth year of publication, *Yellowstone Science* presented information on many aspects of the park's natural and cultural resources for nearly 2,600 subscribing individuals and institutions. In addition to an issue devoted to Yellowstone grizzly bears, topics included the history of moose populations on the northern Yellowstone winter range, the effects of high levels of CO₂ on plant communities in Yellowstone, the economic impacts of wolf recovery, the use of religious terminology in the nineteenth century to describe Yellowstone, and Fishing Bridge as a case study of the park management response to changing values.

Staff collaborated with the International Association of Wildland Fire in planning *The '88 Fires: Yellowstone and Beyond*, held in September in Jackson Hole, Wyoming, to mark the 20th anniversary of the fires that covered 1.4 million acres of the Greater Yellowstone Area and other large fires that occurred in the West that year. The conference featured more than 140 presentations and discussions in which the primary themes were lessons learned from the fires and how fires and their management are likely to change in the future. Among the approximately 450 attendees were agency managers, scientists, university researchers and students from the U.S. and other countries, and many who participated in the 1988 firefighting efforts.

Resource and Visitor Protection

Budget

	FY06	FY07	FY08
ONPS	\$6,856,200	\$6,870,600	\$7,596,400
Special Use	360,244	358,771	323,500
SEPAS	92,425	0	0
Proceeds from Sales	12,333	2,708	690
Reimbursable Accts	332,938	394,076	839,349
Fee Collection	1,379,400	1,420,566	1,466,400

FLREA	292,700	234,200	866,349
Donations	205,014	269,978	485,756
Restitution	23,024	27,982	47,494
Federal Hwy	150,000	120,000	62,800
FIREPRO	1,097,501	1,132,312	1,271,789
TOTAL	10,801,779	\$10,831,193	\$12,960,608

Visitor Services Office

Resource and Visitor Protection (RVP) fee collection operations include five entrance stations with eleven kiosks: an honor system at Bechler Ranger Station and seven campgrounds totaling 454 sites (open seasonally May to October, except Mammoth which is open all year). The NPS is required to collect and retain entrance use fees to improve visitor services, facilities, and resources. Yellowstone conducts a collection business under the authority of Title VIII of the Federal Lands Recreation Enhancement Act of H.R. 4818 (the Omnibus Appropriations bill for FY05).

The year 2008 was the second year of a new entrance pass series; *America the Beautiful - The National Parks and Federal Recreational Lands Pass Program*. This program replaced the Golden Eagle, Golden Age, Golden Access and National Park Passes. The new pass series includes an \$80 annual pass, \$10 Senior Pass and non-fee Access Pass; the Yellowstone and Grand Teton Park Pass was \$50. Entrance fees were \$25 per vehicle for 7 days. Campground fees continued at the same price of \$12 or \$14 a night, depending on amenities at the campground.

Fees Collected in 2008

Approximately 80 percent of fees collected remain in the park to accomplish projects the park has been unable to fund through yearly congressional allocations. Projects include road improvements, enhanced accessibility to park buildings and resources, and campground and amphitheater upgrades. Most visitors are supportive of fees as long as the majority of fees are retained in the park to help protect the park and its facilities

Park Recreational Visitation—2008 was 6th Highest Year Recorded

Visitation to the park this year was up in the winter, correlating with good snow conditions. As the snow and blustery weather continued through May, visitor numbers were down. High fuel prices did not keep visitors away this year with the total recreation visitation reaching 3,066,579.

North	565,354
West	1,273,046
South	673,694
East	376,976
Northeast	177,509

Total Rec Visitation 3,066,579

TOTAL FEES COLLECTED	\$9,250,606
Boat Permits	24,395
Fish Permits	775,400
Campgrounds	\$535,438

North	\$1,715,644
West	3,458,096
South	165,868
East	1,768,432
Northeast	590,790
Bechler	6,862
Public Lands Desk	200,073
VSO	15,310
TOTAL	\$7,921,075

Branch of Law Enforcement Services (BLES) Criminal Investigations

Special Agents and detailed U.S. Park Rangers handled over 150 criminal investigations, including: drug distribution, aggravated assault (including sexual), Lacey Act (poaching), 16 USC 19 jj damage recovery, felon in possession of firearms, sex offender (failure to register), child sexual violence/exploitation, immigration violations, fraud, theft, and a variety of other long-term and complex cases. Special Agents and Rangers obtained felony indictments (grand jury true bills) on multiple cases. Special Agents provided investigative support to other parks in Wyoming and Montana, including Big Horn National Battlefield, and Grand Teton and Glacier National Parks.

Criminal Prosecutions / Evidence Management

BLES continued to work with the U.S. Attorney's Office in support of criminal prosecutions in U.S. Magistrate Court. In 2008, there were 531 docketed court cases with 429 appearances, which represented a 23 percent increase in criminal defendants. There was a drop in the number of violation notices issued in 2008 versus 2007 (2,094 versus 2,610 - a 25 percent decrease). Arrests were up dramatically (from 270 in 2007 to 329 in 2008 - a 22 percent increase). Approximately 50 arrest warrants were served or cleared via warrant service (arrest) [NCIC "hits"] in 2008.

BLES continued the revamp of the parkwide evidence program that was initiated in 2004. This included periodic hands-on inventories and destruction of cleared or adjudicated evidence, improvements to the secure storage facility inside the Communications Center and the expansion of the Access evidence database.

	2008	2007	2006	2005	1990	1976
Part I Offenses	181	148	138	148	161	270
Part 2 Offenses	4,109	4,087	4,036	4,815	2,760	2,031
Drug Offenses	82	128	115	207	na	na
Violation Notices	2,094	2,610	2,605	3,371	2,417	549
Case Incidents	5,781	6,359	6,068	7,886	4,879	2,358
Court Appearances	429	350	374	229	157	50
Physical Arrests	329	250	260	252	126	29
Traffic Accidents	612	593	553	522	496	420
Personal Injuries	735	767	705	657	554	349
Fatalities	2	12	7	7	7	7
Property Loss	\$3,810,405	\$3,799,606	\$3,785,250	\$3,675,000	\$1,550,600	\$380,450
Tort Claims	52	47	36	48	60	22
Auto Burglaries	5	4	8	5	53	73
Firearms Violations	25	39	31	32	29	11
Wildlife Poaching	11	5	10	11	10	na
DUI	43	66	56	64	68	na
Public Intoxication	50	75	58	41	na	na
Minor in Possession	122	264	288	170	na	na
Sale or Gift to Minor	18	24	25	12	na	na
Open Container	62	96	71	103	na	na
Alcohol in Closed	7	8	2	17	na	na

Assaults on Rangers

Yellowstone reported seven officers assaulted in the line of duty in 2008. There were no officers injured as a result of these threats or attacks and all of the offenders were convicted in court for their criminal acts. Six of the seven officers were assaulted inside the park and one assault took place during an agency assist in Gardiner, Montana. In two of the four assaults, rangers utilized a Taser to take the assailant into custody – one time the Taser was displayed and the offender submitted to arrest; in the other incident, the offender was shocked one time and was then arrested without displaying further assaultive behavior.

Yellowstone Special Operations Group

The Yellowstone National Park Special Operations Group (SOG) is the Chief Ranger's primary critical incident response organization. It is commanded by Deputy Chief Ranger Nick Herring and assistant

commander District Ranger Michael Keator. There are three teams associated with the SOG:

- Special Response Team (SRT)
- Crisis Negotiation Team (CNT)
- Tactical Tracker Unit (TTU)

Yellowstone National Park created a tactical team in response to a 1989 incident at Old Faithful where a gunman took several visitors hostage. Due to Yellowstone's exclusive Federal jurisdiction and its remote location, the Chief Ranger at the time directed the establishment of a team that could manage incidents until additional resources arrive. The nearest mutual aid tactical team is located in Bozeman, Gallatin County, Montana, approximately 90 miles away. Over time, Yellowstone's SRT has increased its operational capabilities, training commitment, and adapted to fluctuating operator membership.

Special Response Team

SRT Overview

SRT is the SOG's tactical element, responsible for the tactical management of hostage/barricade incidents, active shooters, high risk arrests and warrants, VIP and dignitary protection, specialized enforcement operations, tactical tracking, and certain wildlife management activities.

Communications Center Accomplishments

The Yellowstone Interagency Dispatch Center continued to facilitate interagency cooperation and communication. The center dispatchers answered nine 911 lines, eight direct phone lines and the park switchboard. We dispatched on three radio channels with eleven separate repeaters. We monitor over 300 alarm accounts and 63 cameras parkwide. In 2008, the center handled 20,694 calls for service and 3,138 administrative function calls. The vast majority of these calls were for law enforcement purposes. We issued 5,785 case numbers. Last year the center processed 317 incidents and administrative functions from Park County, Wyoming. The center also facilitated parkwide operations including handling flight following for 213 research flights, 1,415 maintenance calls for service, 394 alarm system incidents, 521 road reports logged, and 103 people on administrative travel were tracked.

Our warrant system continued to grow. This past year we expanded our service to include assistance to FLETC in the tracking of missing/stolen badges within the region. The center also assisted Glacier National Park with the entry of a missing international visitor. We have continued our MOU with Grand Teton National Park, handling all of their NCIC entries. We assisted Grant-Kohrs Ranch with NCIC investigative assistance. The center manager provided copies of Yellowstone Communication Center SOP manual to five other NPS locations. Information and documentation of our warrant program was given to two other national parks that are interested in adopting our program.

The center manager has been actively involved in the Department of Interior IMARS program to provide a servicewide records management and computer assisted dispatch program to the entire agency.

This year, the center was audited by both the State of Wyoming and the FBI for compliance with laws and regulations. The center received the highest level possible on both audits.

Corrals

Corral Operations started the year repairing the more than 200 pieces of riding and pack equipment used

by park staff in the field. We purchased 275 tons of large round bales for Stephens Creek and 80 tons of small bales for the interior. All hay in the park was certified weed free and purchased from vendors in the Gallatin and Paradise Valleys of Montana. We also purchased four tons of grain, one ton of salt and two tons of mineral.

Training consisted of two one -week Basic Horsemanship Classes at Stephens Creek. This training was conducted by horse trainers Alvin Pierce from Paradise Valley and Larry Todd from Wilcox, Arkansas. Their hands-on basic horsemanship was well received. Corral Operations staff was assisted by backcountry rangers during four one-day refresher trainings in the interior.

Regular operations included: providing health care for the stock, including vaccinations, deworming, Coggins testing, and vaccinations for West Nile virus, shoeing, training young and new stock, supplying feed to the field stations and packing support for all divisions.

Corral Operations staff were integral in Bison Management operations. Hazing operations started on January 13 and held bison were released on May 19.

Two packing trips consisted of one trip to Mary Mountain and one trip to the Hoodoos packing archeologists from the University of Wyoming who were doing research on the Chief Joseph Trail. Ninety-three loads of materials were packed into Specimen Creek for fisheries to build fish dams. We also packed Superintendent Lewis and friends into the Thorofare.

Two parade horses were outfitted as flag bearers for the dedication of the new Justice Center in Mammoth August 25, 2008.

Bison Management

RVP staff continued to implement the Interagency Bison Management Plan in 2008. Bison activity was intense in the North Management Area this year with RVP staff involved in 118 hazing operations, both within and outside the park boundary. Above average winter conditions saw large out migrations of bison in the North Management Area. These movements resulted in 1,636 bison being captured at the Stephens Creek facility. Of these bison, 1,276 were consigned to slaughter, 112 calves were transferred to the USDA APHIS/Montana Fish, Wildlife and Parks Quarantine Feasibility Study, and 335 (including 80 newborn calves) were held and released back into the park on May 19, 2008.

West Management Area activities were relatively moderate with RVP staff conducting or assisting Montana Department of Livestock with 16 hazing operations.

Backcountry Management

	2006	2007	2008
# Backcountry Permits Issued	4706	4822	5090
# People Use Nights	37193	37933	39302
# Stock Use Nights	5882	6412	6173
# Advanced Reservations	1589	1562	1669

EMS & Search and Rescue

Stats Based on a 3 Year Average			
	2008	Avg.	
EMS Incidents	701	686	
Advance Life Support Calls	304	269	
Ground Transports	435	422	
Life Flights	80	84	

The Resource and Visitor Protection Division managed 33 Search and Rescue (SAR) incidents in 2008. Eight incidents were major (un-programmed cost in excess of \$500) and five were mutual aid assists to other agencies. Total 2008 SAR related expenditures were \$56,143.69. Park staff contributed 945 person hours to Search and Rescue incidents.

Of particular note this year was the NPS response to two incidents where the notification mechanism was a personal location device.

Yellowstone staff continues to provide SAR expertise regionally via search dog capability, avalanche rescue expertise, technical rescue capability, helicopter rescue capability, and all hazard incident and search management skills.

Youth Conservation Corps

Yellowstone's Youth Conservation Corps (YCC) has continually been an extremely productive and influential Youth Program and the 2008 season was no exception. The outstanding leadership (with 9 out of 13 staff returning) provided by the dedicated YCC staff steered the Environmental Education and Experiential Recreation Programs to new depths and led to the completion of many quality work projects throughout the park.

Crew leaders worked with area contacts from the RVP, Resource Management and Maintenance divisions to complete backcountry and front country projects which included but were not limited to: bridge demolition, trail rehabilitation and rerouting, cabin restoration, trail construction and maintenance, removing exclosures and wolverine traps, brushing and clearing trails as well as construction of trail signs and removal of invasive plants.

The commitment and character of the seasoned YCC staff made them strong mentors for the participants of the program. The 30 students who participated were once again driven to new heights and came out of the program ready to take on new challenges.

Partnerships

Innovation, collaboration and partnerships with various youth and volunteer service organizations continue to be successful key ingredients of the Backcountry Trails Operation. In 2008, Yellowstone benefitted from the assistance of 52 crew weeks on joint trail projects with our Cooperating Groups including the Montana Conservation Corps (MCC), Yellowstone Youth Conservation Corps (YCC), Student Conservation Association (SCA), Continental Divide Trails Alliance (CTDA), Greater Yellowstone Coalition (GYC) and numerous dedicated individual volunteers. The Yellowstone Park Foundation continues to demonstrate great support of our youth and young adult partnerships with 16 of the crew weeks contained within the scope of the 2008 Trails Fund Initiative projects.

The year 2008 once again saw joint safety/trails skills partnership trainings between NPS trails staff, Yellowstone Youth Conservation Corps and Montana Conservation Corps leaders and crew members. The two week-long trainings offered the opportunity for the work groups to build upon essential foundations while providing for treatment of compromised assets and resources on the Snow Pass, Rescue Creek, Hellroaring Creek and Artist Paint Pots Trails.

Trails Significant Events

The 2008 Backcountry Trail Operations service-day observances of National Trails Day and National Public Lands Day in early June and late September, respectively, were once again celebrated by participating volunteers and NPS staff with the passion, sweat, hard work, and camaraderie that have come to be expected. The Hellroaring Creek, Artist Paint Pots, and Ribbon Lake Trails were beneficiaries of these dedicated groups who excavated and installed log drainage and retention structures over two miles of trail.

2008 once again brought the implementation of multiple FLREA and grant-supported trail projects to protect, repair, and rehabilitate numerous assets and resources throughout the park. Over the course of 28 weeks, NPS trails staff addressed numerous safety, resource protection and deferred maintenance issues in the field via treadway realignment, reconstruction and resurfacing, erosion control, re-vegetation and construction of retaining and drainage systems on over 83 miles of trail and four miles of backcountry road. In addition, 113.5 miles of clearing and backlogged brushing was completed and 281 miles of trail asset Condition Assessment was conducted for the FY08 National FMSS/FCAS initiative. Highly popular destination travel pathways and icons such as the Hellroaring Creek, Thorofare, Mountain Creek, Bechler Canyon, Bighorn, Fawn Pass, and South Boundary Trails benefitted from the 2008 repair regime treatments. In addition, Trails Operations, Maintenance and Tower Ranger staff met with CTA engineer Kevin Feltman and undertook the beginnings of structural assessment, design and refurbishment of the Hellroaring and Blacktail suspension bridges in the fall.

2008 also brought the third year of the Yellowstone Park Foundation Trails Fund Initiative donorsupported trail projects. With the generosity of supporters such as Conoco Phillips, Coca-Cola, Dr. Scholl and numerous other friends of the park, repairs were undertaken at several popular front and backcountry locations with extensive deferred maintenance needs. Projects of significance included: Artist Paint Pots, Wraith Falls, Tower Creek/Lost Lake, and Miller Creek Trail Restoration Projects. Highlights of the projects included the construction of long lifecycle masonry structures and the removal of slips/trips/fall hazards at Wraith Falls and Artist Paint Pots, and the replacement/refurbishment of seven highly used stock and foot bridges contained within the greater Roosevelt/Tower trail network. Noteworthy events involved the collaboration, teamwork and craftsmanship that came together on the Artist Paint Pots project. While originally slated as an asset refurbishment, slips/trips/falls mitigation of rocky surfaces and resource protection/rehabilitation, the dynamically changing area encountered thermal complexities in the form of spouting mud, vents, springs, and washouts and a visitor receiving a thermal burn injury which necessitated closure and geologic assessment of the area. Trails staff involved in the initial injury response received recognition for their efforts and assistance. NPS staff responded to the events with a concerted, interdivisional effort that culminated in the joint undertaking of an intensive boardwalk and trail construction regime and the reopening of the trail to the visiting public for the Labor Day holiday. Contributors included resource experts from the YCR, District Ranger and Interpretive staff, Trail and Boardwalk staff, Wildland Fire Helitack, and YCC and MCC crews.

The Trails Operation also garnered successful funding submittals from the Montana and Wyoming State Recreational Grant Programs. The Wyoming "Big Game Ridge Trail Restoration Project" and the Montana "Fawn -Bighorn Loop Trail Restoration Project" supported ten weeks of partnership with the

MCC addressing corridor realignment, reconstruction and rehabilitation needs in three pristine backcountry locations.

Structural Fire

In 2008 there were a lot of lessons learned and a lot of knowledge gained. We had several fire academies, participated in urban interface on the LeHardy fire, and extensive live fire training at Canyon.

Of the 295 responses, 75 percent were false alarms. These can be reduced with continued fire alarm testing and maintenance. In addition, a continued effort on construction projects can help reduce these numbers significantly. Old Faithful responded to the Old Faithful Inn 40 times; 38 were false alarms primarily caused by contractors.

The two most active areas were Old Faithful and Mammoth. Old Faithful had 43 percent of the responses with 125. Mammoth had 34 percent of the responses with 97. We spent a total of 300 hours on scene with 1,469 staff hours to accomplish the work. This is an average of four firefighters responding to each call.

The academies offered this year included: Defensive Fire Fighter, Fire Fighter 1, Fire Fighter 2, Driver/Operator, Fire Instructor 1, Fire Inspector 1 and wildland refresher. In total, 700 hours of training were provided.

Wildland Fire

The fire season for 2008 began with the filling of a number of vacant positions. We welcomed Rory Laws as the fire use module leader, Tonja Opperman as the fire ecologist and Jessica Page as the lead fire effects person.

Only eight fires occurred in 2008. Five were human caused, one was caused by a vehicle fire, one was caused by a power line, and the only fire use fire was caused by lightning.

The LeHardy Fire started when strong winds toppled a tree into power lines near LeHardy Rapids. This fire was initially under an aggressive suppression response, while it still posed a threat to visitors and the power line. Once the threat to these resources was mitigated, a second, less aggressive plan that focused on the safety of firefighters was implemented. Long-term monitoring plans were made based on a lack of values at risk combined with a relatively low spread potential.

Management of the fire was conducted with a small Type 3 organization for its duration, with much of the help coming from Yellowstone employees. The fire had its exciting moments and was part of the local fire scene as the neighboring Gunbarrel Fire on the Shoshone National Forest continued to burn. The LeHardy fire was nationally significant in that it was one of the larger fires managed using the prototype Wildland Fire Decision Support System (WFDSS) to inform management strategy and tactics. The park received a National Wildland Fire Fuel's and Ecology Award for management of the LeHardy Fire. Other fires of significance in Yellowstone were the Outlet and Ash Fires, approximately 10 acres each and human caused. One fire received a limited suppression response and was allowed to burn and the other fire received a monitoring response and burned. For the first time, human caused fires were allowed to grow with limited response. Managers at all levels continue to familiarize themselves with the possibilities of the policy.

Interpretation, Education and Partnerships

Overview

Web Specialist Tom Cawley received the NPS's highest award for excellence in interpretation and education, the National Freeman Tilden Award, for his work in establishing the first continuous live streaming web cam in the National Park System. This was an historic occasion for the park's interpretive program, as Tom was the first Yellowstone employee to receive the National Tilden Award.

Fiscal year 2008 began with Deputy Chief of Interpretation Judy Knuth Folts serving as Acting Chief of Interpretation on a 120-day detail. In February 2008, Deputy Chief Linda Young began a 120-day detail and was selected as Chief of Interpretation in March. Linda continued to supervise the Branch of Planning and Media during FY2008. Other staffing changes included the departure of Old Faithful Subdistrict supervisor Kelli English (to Golden Gate NRA). Clare Cloghessey was selected to fill the Administrative Assistant Position vacated by Karen Angermeier. The Canyon Subdistrict Interpretive Ranger position vacated by Beth Taylor's move to the Education Branch was filled in April by Tammy Corchero, and the Grant Subdistrict Interpretive Ranger job (vice Will Yavorsky) was filled by Peter Hamel. With the reorganization of the former Planning-Compliance-Landscape Architecture Division, Leigh Anne Dunworth was moved into the Division and occupied a split position that supported Albright VC operations and the development of a parkwide VIP Strategic Plan. The Curriculum-based Education Branch was realigned to report to the Deputy Chief for Operations. Other permanent and term positions remained unchanged from previous years.

Park visitation for calendar year 2008 totaled 3,066,580, down approximately 3percent from the total for calendar year 2007. Gasoline prices hit record highs during summer 2008 and a major collapse of the stock market in the fall led to concerns that park visitation would decline significantly, so a 3percent decline was considered a positive outcome in light of these bigger picture developments. Many employees and area residents commented that international visitors seemed to make up a much larger proportion of park visitation than has been observed in recent years. Other trends noted in regional and national media included people spending less on discretionary items, and taking shorter vacations closer to home.

The Chief of Interpretation and Education, along with other division staff, spent substantial amounts of time engaged in managing the relationship with the park's cooperating association, the Yellowstone Association. All materials proposed for sale in Association bookstores were reviewed according to established criteria. All courses, tours, or activities offered under the auspices of the Yellowstone Association Institute were also reviewed, and all courses were monitored by NPS staff as part of the ongoing process of ensuring conformity with park goals and regulations. In addition, the Chief coordinates with the YA Executive Director on a range of short and long term planning activities such as the development of new bookstores in visitor centers that are undergoing construction or renovation, and revisions to NPS policy (D.O. 32) governing the relationships between NPS units and cooperating associations.

Work with the park's primary fundraising entity, the Yellowstone Park Foundation, typically revolves around writing proposals for grants, reporting on approved projects, and assisting with board meetings or special events conducted with donors or prospective donors. A special tour of the Old Faithful Visitor Education Center construction site was given to the single largest private donor to that project, and several other tours or private activities were presented to YPF's special guests throughout FY2008.

Planning & Media Branch

Planning/Project Management

Fiscal year 2008 marked the second full year of operations at the new Canyon Visitor Education Center. The exhibits and interactive media continued to draw enthusiastic reviews from visitors and scientists, and total visitation continued to grow. Maintaining these highly popular exhibits was challenging: heavy visitor use combined with frequent electrical blackouts and brownouts caused damage to exhibits, and resulted in the partial or complete shut-down of computer-driven systems. Planning and media staff provide overall management and troubleshooting of problems, coordinating work with fabrication contractors and subcontractors as well as with visitor center staff. The touch panel in the theater control room malfunctioned during the first week of Canyon VEC's spring opening, resulting in the shutdown of the theater for nearly a month in the early part of the summer. Development of a new geology film to be presented at Canyon VEC continued throughout 2008. The film, funded by the Yellowstone Association, was produced by Harpers Ferry Center filmmaker John Grawbowska and will tell the story of how geology sets the stage for all of the scenic and wildlife splendors for which Yellowstone is world renowned. By the close of FY 08, much of the video footage for the film had been shot and script development and review was well underway.

The new Old Faithful Visitor Education Center passed through two important milestones in FY2008. First, the contract for construction was awarded to Swank Enterprises, the same general contractor who built the Canyon VEC. Next, ground breaking for construction began in late May of 2008, a major accomplishment in a year when late winter-style snowstorms repeatedly hit the park and left significant snow accumulations that lingered into late spring and early summer. Visitor center operations have been based from a temporary modular structure located near the Old Faithful Lodge. By the close of FY08, construction of the new building was proceeding on schedule.

At the beginning of FY08, planning and design of the exhibits and interpretive media for the new Old Faithful Visitor Education Center was moving ahead on all fronts after a period of slowed progress while the redesign of the facility took place during the previous year. Because of significant reduction of exhibit space (from 7,100 s.f. in the former design to 4,500 s.f. in the final design), the decision was made to eliminate several of the previously planned exhibit areas, while reconfiguring the remainder within the smaller space. Exhibits and interactive media are organized into the following thematically-focused areas: "How a Geyser Erupts," "The Park's Hot Water Riches," Life in Thermal Areas (a diorama), "Extreme Microbes," "Science in Yellowstone," and a Young Scientist/multipurpose exhibit and classroom area.

The Albright Visitor Center is targeted for major renovation to correct structural seismic deficiencies. In late August '08, CTA Architects/Engineers submitted the 100% Design Development documents showing the space plan and functional rearrangement of public and administrative areas. Funding for construction remains uncertain as this project's Line Item Construction priority was bumped to a later fiscal year.

The West Yellowstone Visitor Information Center addition opened to the public on August 14, 2008. This addition provides improved visitor information and orientation services at the park's West Entrance, which is typically the busiest entrance to Yellowstone National Park during the summer and winter seasons. The new community room has proven to be very popular for various community meetings, NPS public meetings, training sessions, and interpretive programs.

Renovation of Grant Visitor Center in FY08 included completion of a new roof, updating the lighting fixtures in the GVC auditorium, and substantial work on a new facility sprinkler system. In May, the Backcountry Office moved into the Visitor Center lobby while the Yellowstone Association Bookstore

moved into a renovated section of the exhibit hall. This redistribution of functions created a significant downsizing of exhibit space and at a time when there was no funding to plan and design new exhibits. To accommodate the new space requirements, units of the existing exhibits were removed, and remaining units were rehabilitated and reconstructed in order to tell a new, but still pertinent, story of fire history and ecology in Yellowstone.

A new geology film moved into full scale production during fiscal year 2008. Video footage was shot throughout the year, and script research and development progressed through several cycles of review and revision. Meetings with Harpers Ferry Center film producer John Grabowska helped guide and prioritize work, and provided the subject matter expertise essential to balancing the outcomes of an accurate storyline that also engages a large and diverse audience.

A parkwide VIP Strategic Plan was in development throughout the last two quarters of the fiscal year, with completion targeted for FY 2009. Extensive research into the current parkwide VIP Program was conducted, along with research into the Servicewide VIP Program and those in national parks with highly regarded VIP Programs. A broader based exploration of volunteering in the federal sector led to the identification of an existing web-based resource for recruiting volunteers. The scope and organization of the Yellowstone Strategic Plan were established.

Exhibit Program

Exhibit Specialist Jo Suderman completed the planning, design, and installation of 5 new wayside exhibits interpreting the Fires of '88; designed and coordinated the production of 8 trailside exhibits for points along the Canyon rim; installed 7 Norris Geyser Basin trailside exhibits providing interpretation, safety, orientation, and accessibility information; moved an additional 33 waysides through various stages of planning, design, and production; and replaced, repaired, or rehabilitated 14 waysides. She provided the park's Safety Officer with a list of 161 locations of exhibits and trail boxes that include visitor safety messages and/or the interpretation of extreme conditions; and worked with Maintenance to install a bulletin board at Artist Point and new self-guiding trail leaflet boxes at the following locations: Fort Yellowstone (1), Mammoth Hot Springs (4), Canyon South Rim (2), Mud Volcano (3), and West Thumb Geyser Basin (2). Through the supervision of a STEP employee, a full inventory and condition assessment of Yellowstone's 344 waysides was accomplished, and exhibit halls in eight of the park's visitor centers were measured and diagramed.

Exhibit/interpretive media work at Canyon Visitor Education Center included bringing in a professional topographic model artist who volunteered to clean, touch up, and maintain the Yellowstone model, lengthening the life of this well-loved exhibit; and extensive consultation with the lava lamp manufacturer to address wax discoloration and other issues. Staff continued to familiarize themselves with the complex mechanical and computer-driven systems. Frequent power outages and brownouts affected their operation, trigger new problems, and required ongoing experimentation to understand and repair breakdowns.

At Fishing Bridge Visitor Center the exhibit specialist worked with contractors to replace the "3-D" Yellowstone Lake topographic model to achieve color adjustment and surface finish enhancement, all under warranty. A notably improved model was delivered to the park and Jo coordinated installation which was completed prior to the start of the summer season. She also worked with Yellowstone Maintenance to design and install a Plexiglas guard around the perimeter of the model's pedestal to help protect and extend the life of this exhibit while allowing for unimpeded views of the model.

As noted in other reports, precise counts of visitor use of exhibits are impossible to obtain for many reasons. However, reasonable estimates can be made from a variety of data. Based on public use of the

park's visitor centers, the numbers of people in major developed areas, and traffic studies, we conservatively estimate that exhibits account for some 12 million visitor contact episodes. Another way of understanding this number is that every Yellowstone National Park visitor likely used at least one exhibit (indoor or outdoor) on 4 different occasions during a typical visit. Observation of actual visitor behavior suggests that this number is much higher. Also, surveys document that visitors rate exhibits in the highest category of desired services. They are one of the most cost effective methods of serving Yellowstone's 3 million annual visitors.

Publications Program

During FY 2008, Publications Specialist Carolyn Duckworth produced 44 unique publications. These included four editions of the official park newspaper *Yellowstone Today, Yellowstone Resources and Issues 2008*, eight self-guiding trail booklets used at major park attractions such as the Grand Canyon of the Yellowstone and Old Faithful Geyser area, and visitor trip planning guides. This being the 20th anniversary of the "Summer of Fire," *Resources and Issues 2008* provided an expanded history of the 1988 fires and the park newspaper included a special supplement about the fires. Significant support was provided to safety and visitor comfort, such as producing road construction flyers and the new wolf card handed out at "wolf jams." Extensive editorial and production assistance was provided for the Tower-Roosevelt Comprehensive Plan, and invitations and programs were produced for the Justice Center dedication. In addition, work began on a comprehensive guide to YNP's accessible services and facilities, and on a new self-guiding tour booklet for the Old Faithful Historic District. Beyond park boundaries, publication design and production support was provided to Olympic National Park to develop an expanded fishing regulations guide using the same format as Yellowstone's fishing regulations.

Publications serve a vast and diverse audience of park visitors and the general public. As with exhibits, it is difficult to accurately count the many occasions when visitors used park-produced publications, and precise counts may never be obtained. Determining a reasonable method of counting publication use will continue, with a goal of achieving greater accuracy. However, during FY 2008, we estimate that each visitor used approximately four different publications during the course of a typical visit. (This number is derived from a standard calculation that estimates our individual visitor use episodes at 11,761,213, divided by 3,227,052 publications distributed.) Along with other interpretive media, publications are the most cost-effective means of providing services that are highly valued by YNP visitors.

Web/Internet Program

The Web Program develops, maintains, and evaluates Yellowstone National Park's official web site. It works closely with all park divisions, offices, and partners to acquire and manage information from which high impact, high quality, and diverse interpretive and educational products are delivered to millions of users of all ages and backgrounds. Through dynamic web-based features, staff creates a "virtual park experience" designed to engage a global audience in understanding the significance of Yellowstone NP and become supporters of its ongoing preservation. The official web site also continues to evolve in order to achieve broader goals relative to "e-government" and the transparency of government institutions.

Yellowstone National Park's official web site is the single most viewed web site in the NPS.gov system. Yellowstone's web pages (excluding webcam pages) were viewed a total of 24,393,795 times in FY08. The park's homepage alone was viewed 4,578,799 times, more than any other park, including GRCA (4.2 million), YOSE (2.9 million) and GLAC (2.2 million). Other key entry points into NPS.gov are the Plan Your Visit Pages – the NPS WASO Web Enterprises Office estimates that 75-80 percent of the public come to NPS.gov for this reason. Yellowstone again led the way with 1,567,006 page views of its Plan

Your Visit index page (GRCA was second with 893,085). Our web site accounted for 33% of the top 10 most viewed web pages on NPS.gov.

Site Catalyst reported visits from 230 countries worldwide. In FY08, the top countries with the most web visits were (in order) Canada, the United Kingdom, Germany, France, Netherlands, Italy, Australia, Japan, Ireland, and Spain.

During FY2008, Web office staff completed work on the first phase of the Old Faithful Virtual Visitor Center, and this new interactive web feature was released for public use in August, 2008. Work continues on Phase II of the project, including developing a web portal for the site using software donated from IBM to YPF.

The Online Roving Ranger video series (aka "web videos" and "podcasts") continues to grow. An additional 39 new Inside Yellowstone videos along with the related Glossary and Bonus Feature research links were posted. And another 16 Inside Yellowstone videos were shot in FY08 and will be edited in FY09. Web Office staff wrote and filmed 6 episodes of a new video series, Yellowstone Orientation. Editing will start in FY09.

The Web Office conducted 12 live online ranger-led programs using the Live Streaming Video Camera at Old Faithful. The live stream focuses on eruptions of Old Faithful, as well as other geysers in the basin, and wildlife that pass through the viewing range of the camera lens. The launch page for the stream has grown in popularity throughout the year to reach the point of the 6th most viewed page in the NPS.gov web site, despite not going live until the 2nd Quarter of FY08 (Jan. 22, 2008). The launch page was viewed a total of 1,751,740 times.

Photography/Videography Program

Park Photographer/AV Specialist Jim Peaco again spent significant amounts of time troubleshooting the Canyon VEC theater and exhibits. Repeated problems with theater electronics required extensive consultation with theater and electronics contractors to track down problems with the complex equipment and systems that run the interpretive media at Canyon VEC. This second year of managing new problems and finding new solutions provided an expanding body of troubleshooting tips and techniques that will benefit all future staff involved in maintaining the system at Canyon VEC. In addition, this office responded to over 400 requests for services from all park divisions and partners. Special events requiring photo documentation included the grand opening and dedications of the Yellowstone Justice Center in Mammoth Hot Springs and the West Yellowstone Visitor Information Center. Other special events included a major donation from Toyota USA to the Yellowstone Park Foundation, the Biennial Science Conference in Jackson Wyoming, rephotographing the original photo points shot in the immediate aftermath of the fires of 1988, coordinating audiovisual system troubleshooting and equipment management for nine visitor contact facilities and seven campground amphitheaters, and providing special presentations to university and other special interest groups. This office provides essential support for all interpretive programs and interpretive media development, and is frequently called upon to accompany non-NPS photographers and media.

The slide scanning and digitization project continues to make great strides in converting this highly valuable and widely used park resource into a fully digital image collection. By the end of the fiscal year, over 15,000 images had been scanned. Efforts to keep the online image bank completely up to date were hampered by WASO Web Enterprise Office policies preventing park web office staff from accessing relevant web infrastructure through which updates would be made available to the public. Efforts were underway to resolve this and many other issues that affect web posting and result in highly inefficient

processes that impede web-based communications. The index page which provides access to the digital image bank is always among the top 5 most visited YNP web pages.

Operations Branch

The park benefitted significantly from the Centennial Initiative, receiving \$411,000 for 42 new seasonal interpretive rangers. Many of these had been previously funded from one-time only or "soft" fund sources considered unreliable for the longer term. This funding also supported longer seasons of operations in several visitor centers, thus benefitting spring and fall visitors.

Park interpretive rangers provided information and orientation to 2,157,142 visitors at 13 different visitor centers, museums, and warming huts. They presented 7,731 formal interpretive programs to 271,894 visitors participating in walks, talks, hikes, and evening programs. Interpretive rangers provided informal interpretation (also known as "roving" interpretation) at critical resource locations throughout the park including geyser basins, wildlife jams, picnic areas, and campgrounds. Informal interpretive activities resulted in 430,611 visitor contacts.

The Ranger Adventure Hikes, a cost-recovery program, served 1,935 visitors and paid for the interpretive park rangers presenting the programs. Visitors participating in this program consistently offer overwhelmingly positive comments about the high quality of the hikes and the opportunity to spend indepth time with a ranger.

This year, a total of 19,185 children and their families were served through the two-tiered age group Junior Ranger Program and Young Scientist Program, the latter being available at Canyon and Old Faithful for the first time. These programs are managed by the Formal Education Branch, with publication production services provided by the Planning and Media Branch, and program delivery provided by the Field Operations Branch. A total of 9,353 Junior Rangers and their families participated in programs at the Junior Ranger Station, located in the former Madison Museum building.

The Elk Corps Volunteer Program was again successful in reducing autumn rut-related incidents involving elk-human conflicts in the Mammoth area. This was the fourth year of this project that operated with volunteers from early September through mid-October in the Mammoth Hot Springs Sub-district. Volunteers assisted in controlling crowds, creating a safe wildlife viewing environment for visitors while protecting wildlife, and providing critical resource information to park visitors. Four volunteers were hired for months of September and October, 2008. Volunteers provided information to 14,643 visitors and resource warnings for being too close to elk to 5,390 visitors during FY08.

The Wolf Education Ambassador Program continued in FY 2008. This was the final year for the Yellowstone Park Foundation funding. Three interpretive park rangers provided educational information at the locations where wildlife and visitors interacted, informed visitors about wolf habituation, enhanced visitor and wolf safety, and reduced visitor/animal conflicts. The Wolf Education Ambassador Program has made 61,948 educational contacts and they gave 6,918 verbal resource warnings to visitors who got too close to wolves or otherwise disturbed wolf movement. The team presented 71 formal interpretive talks and evening programs. These programs were attended by 4,248 visitors.

The Gateway Community Outreach Program continued to be a valuable communication tool for park management in FY08. District interpretive staff attended 62 community meetings in the tri-state area, making 1,717 professional contacts through attendance at Chamber of Commerce meetings, civic organization meetings, and special event shows in the region. The goal of this program is to continue to develop and maintain positive, mutually respectful, and beneficial relations with park gateway communities located in Montana, Idaho, and Wyoming.

The Bear Safety through Education Program was conducted with three interpretive park rangers. A total of 82,348 visitors were contacted during summer 2008. This includes 4,304 formal program contacts. In addition, 23,099 verbal resource warnings were issued to visitors for getting too close to bears and food storage violations. To date, interpretive park rangers have contacted more than 380,000 visitors through this program.

Formal Education Branch

The Division received a Centennial Challenge Program matching grant (\$80,230) that complemented the funding donated by the Yellowstone Park Foundation from Toyota USA (\$80,328). Funds provided staff for the *Day-Use Program*, *Junior Ranger/Young Scientist Programs*, *Teacher Workshops*, *ParKids Program*, and the *Cross Cultural Exchange Program*.

Day use programs were offered in FY08 as staff time allowed. A total of 154 programs were presented for 4.113 contacts.

Four Teacher Workshops were conducted in FY08. Topics presented were: *What Lies Beneath, Hunter Hunted, No Child Left Indoors, and the Mammoth Hot Springs.* A Cross Cultural Exchange experience was offered to Shoshone Tribal youth and elders. This week-long residential experience brought 8 Crow eighth graders, four elders, and two chaperones to the park where two NPS instructors provided an overview of park resources combined with Shoshone heritage as presented by elders.

In FY08, 1,115 students, teachers, and chaperones representing 42 schools, participated in the residential education program, *Expedition: Yellowstone!*. Of that number, 250 students, representing underserved and/or disadvantaged target audiences, received scholarships to attend the program. These scholarships were provided by donations from the Yellowstone Park Foundation.

Five ParKids day camps, an outreach program for youth in gateway communities, were conducted during summer 2008. These were funded by three grants through the Yellowstone Park Foundation including a Centennial Challenge Grant. Communities reached include: West Yellowstone, Pray, Livingston, Cody, and Mammoth/Gardiner. ParKids has established itself as a valued and beneficial NPS gateway community outreach program.

During fiscal year 2008, a major review of the Formal Education Programs was initiated with a goal of reducing and eliminating those activities serving small numbers of people at a very high cost per person, and developing new activities and programs serving large, diverse, and nontraditional audiences on a more sustainable cost per person basis.

Safety

The Division had no DART injuries (Days Away Restricted or Transferred), no continuation of pay injuries, and seven personal injuries while striving for zero accidents in the workplace. There were no lost time accidents in the Division of Interpretation in 2008. Supervisors were provided with information on slips, trips, and falls to employees to use at safety tailgate sessions. The Division completed 582 safety tailgate sessions and 32 safety observations (walkthroughs) for employees or facilities. The Division participated in a pilot of the EASY program, reporting 618 safety observations.

Other

Division staff served on various interdivisional work groups including; the Research Permit Team, the Environmental Management Systems group, the parkwide Safety Council, the Resource Compliance Team, the Exotic Vegetation Management Team, and the Mammoth Area Space Team.